

NATURAL HISTORY,

GENERAL AND PARTICULAR,

BY THE

COUNT DE BUFFON.

VOL. IV.

HISTORY OF BIRDS.

NATURAL HISTORY,

GENERAL AND PARTICULAR,

BY THE

COUNT DE BUFFON,

ILLUSTRATED WITH ABOVE SIX HUNDRED COPPER-PLATES.

THE

HISTORY OF MAN AND QUADRUPEDS

TRANSLATED, WITH NOTES AND OBSERVATIONS,

BY WILLIAM SMELLIE,

MEMBER OF THE ANTIQUARIAN AND ROYAL SOCIETIES OF EDINBURGH.

A NEW EDITION,

CAREFULLY CORRECTED AND CONSIDERABLY ENLARGED, BY MANY
ADDITIONAL ARTICLES, NOTES, AND PLATES,

AND

SOME ACCOUNT OF THE LIFE OF M. DE BUFFON,

BY WILLIAM WOOD, F. L. S.

IN TWENTY VOLUMES.

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Introduce the cancel half-sheet with asterisk folios (printed with the end of the eighth volume) instead of leaf pp. 53-54.

E R R A T A.

Page 80, note, *for* "whence" *read* where.
 348, line 2, *for* "this" *read* the.

NATURAL HISTORY

OF

BIRDS.

FOREIGN BIRDS

THAT ARE RELATED TO THE GROSBEAK.

I.

THE East-India bird, delineated in the *Pl. Enl.* No. 101. fig. 1. under the name of * *Coro-*

* CHARACTER SPECIFICUS.

LOXIA CAPENSIS. L. atra, uropygio tectricibusque alarum luteis.—*Lath. Ind. Orn.* i. p. 373. No. 7.

LOXIA CAPENSIS.—*Gmel. Syst.* i. p. 862.—*Sparm. Voy.* i. p. 174.

FRINGILLA CAPITIS BONÆ SPEI.—*Bris.* iii. p. 171. 45. t. 16. f. 1.

LE PINSON NOIR ET JAUNE.—*Buff.* iv. p. 142.

LE GROS-BEC de COROMANDEL.—*Buff. Pl. Enl.* 101. f. 1. —*Buff. par Sonn.* xlvii. p. 16.

CAPE GROSBEAK.—*Lath. Syn.* iii. p. 113. 7.—*Id. Sup.* p. 149.

HABITAT

ad Caput Bonæ Spei.—6½ pollices longa.

W.

FOREIGN BIRDS

mandel Grosbeak, and which name we have still retained, because it appears to be the same species with that of Europe. The shape, the size, the bill, the length of the tail, are the same in both, and the only difference consists in the colours, which are also disposed in the same order. In short, we may impute the difference of shade to the influence of climate, and consider this Coromandel bird, which no naturalist has taken notice of, as a beautiful variety of the European Grosbeak.

II.

The American bird, No. 154, *Pl. Ent.* termed *the Blue American Grosbeak* *, on which we have bestowed no discriminating name, because we are not certain if it is a peculiar species, different from that of Europe; for in size and

* CHARACTER SPECIFICUS.

LOXIA GROSSA. L. cano-cærulescens, jugulo rectricibusque atris, gula alba, rostro rubro.—*Lath. Ind. Orn.* i. p. 374. No. 10.

LOXIA GROSSA.—*Gmel. Syst.* i. p. 864.—*Daudin. Orn.* ii. p. 371.

COCCOTHAUSTES AMERICANA CÆRULEA.—*Bris. App.* p. 89. t. 5. f. 1.—*Pl. Ent.* 154. (*femina.*)

LE GROS-BEC BLUE d'AMÉRIQUE.—*Buff. par Sonn.* xlvii. p. 18. ●

WHITE-THROATED GROSBEEK.—*Lath. Syn.* iii. p. 115. 10.

HABITAT

in America.—7½ pollices longus.

W.

figure it is the same with our Grosbeak. The only difference is, that it has more red on its bill, and more blue in its plumage; and if its tail were not longer, we should not hesitate to pronounce that it is a mere variety, occasioned by the influence of climate. No naturalist has noticed this new variety or species, which we must be careful not to confound with the Carolina bird, called by Catesby *the Blue Grosbeak*.

III.

THE HARD-BILL*.

The Canada bird, delineated *Pl. Enl. No. 135*, fig. 1. under the name of *Canada Grosbeak*,

* CHARACTER SPECIFICUS.

LOXIA ENUCLEATOR. L. sordide roseo fusco griseoque varia, linea alarum duplici alba, rectricibus totis nigricantibus.—*Lath. Ind. Orn. i. p. 372. No. 5.*

LOXIA ENUCLEATOR.—*Gmel. Syst. i. p. 845.*

COCCOTHAUSTES CANADENSIS.—*Bris. iii. p. 250. 15. t. 12. f. 3.*

LE DUR-BEC, ou GROS-BEC de CANADA.—*Buff. Pl. Enl. 135. i.—Buff. par Sonn. xlvii. p. 20.*

GREATEST BULFINCH.—*Edw. t. 123. 124. mas. et femina.*

PINE GROSBEAK.—*Br. Zool. N^o. 114. t. 49. f. 2.—Arct. Zool. ii. No. 209.—Id. Sup. p. 64.—Lath. Syn. iii. p. 111. 5.—Id. Sup. p. 148.*

HABITAT

in Europæ, Asiæ, et Americæ septentrionalis pinetis.—
9 pollices longa. W.

and which we have called *Hard-bill*, because its bill is comparatively harder, shorter, and stronger, than in the others; and it was proper to apply to it a distinct name, since it differs not only from the European Grosbeaks, but from all those of America and of other climates. It is of a beautiful red, as large as our Grosbeak, but longer tailed, and may be easily distinguished from all the other birds by the inspection of the coloured figure. The female has only a little reddish on its head and rump, and a slight tinge of rose-colour on the lower part of its body. Salerne tells us, that in Canada this bird is called *bouvreuil* (*Bulfinch*). This name has not been ill applied, for there is perhaps an affinity between it and the bulfinch. The inhabitants of that part of America could decide this point by a very simple observation, viz. by noticing whether it whistles almost continually like the bulfinch, or is almost mute like the Grosbeak*.

* It is about nine inches long. Found in all the northern parts of America, from Canada to the western side of the continent. It arrives in Hudson's Bay early in the spring; lodges among the pines and junipers; builds its nest at a small height from the ground; lays four eggs, which it hatches in June. These birds occur also in the north of Europe and Asia. They are frequent in Russia and Siberia; and Mr. Pennant tells us, that he saw them in the pine forests near Invercauld, Aberdeenshire, in the month of August.



THE CRESTED CARDINAL.

IV,

THE CRESTED CARDINAL*

This is a native of the temperate climates of America, and figured No. 37, *Pl. Enl.* by the name of the *Virginia Grosbeak*. It is also called the *Crested Cardinal*, which name we retain, as denoting its two characters, its colour and its crest. This bird resembles much the pine grosbeak; the size, and, in a great measure, the

* CHARACTER SPECIFICUS.

LOXIA CARDINALIS. L. cristata rubra, capistro nigro, rostro pedibusque sanguineis.—*Lath. Ind. Orn.* i. p. 375. No. 14.

LOXIA CARDINALIS.—*Gmel. Syst.* i. p. 847.

COCCOTHAUSTES INDICA CRISTATA.—*Raii Syn.* p. 86. 3. —*Will.* p. 179. t. 44.

COCCOTHAUSTES VIRGINIANA.—*Bris.* iii. p. 255. 17.

GROS-SEC DE VIRGINIE.—*Buff. Pl. Enl.* 37.

LE CARDINAL HUPPE.—*Buff. par Sonn.* xlvii. p. 23, pl. 103 fig. 2.

RED GROSBEEK.—*Alb.* i. t. 57. (mas.)—iii. t. 61. (femina.) —*Id. Song Birds*, t. p. 77.

RED BIRD.—*Kalm. It.* iii. p. 31.—*Id. Voy.* ii. p. 72.

VIRGINIA NIGHTINGALE.—*Wbl. (Angl.)* p. 245. t. 44.

CARDINAL GROSBEEK.—*Arct. Zool.* No. 210.—*Cat. Car.* i. t. p. 38.—*Lath. Syn.* iii. p. 118. 13.—*Id. Sup.* p. 150.

HABITAT

in America septentrionali.—Vix 8 pollices longa.

W.

plumage, are the same; the bill is as strong, the tail of the same length, and the climate is nearly the same. We might, therefore, but for the crest, reckon it a variety of that beautiful species. The colours in the male are much brighter than in the female, whose plumage is not red, but only reddish-brown; its bill is also of a much fainter red, though both have the crest. I should range this bird rather with the bulfinch and the chaffinch, than with the Grosbeak, since it sings agreeably; whereas the Grosbeak is silent. Salerne says, that the warble of the Crested Cardinal is charming, and resembles the song of the nightingale; and that it can be taught also to speak like the Canary birds. He adds, that this bird, which he observed alive, is bold, strong, and vigorous, that it feeds upon seeds, particularly those of millet, and is easily tamed*.

* It is nine inches long: is found through the whole extent of North America. It feeds chiefly on Indian corn, of which it makes a provision for the winter, artfully concealing the deposit with leaves and small branches. It warbles delightfully in the spring mornings on the summits of the loftiest trees. Its song is said to resemble that of the thrush. It is a hardy and familiar bird.

The four birds which we have just mentioned are all nearly of the same size with the European Grosbeak. But there are many other interme-

diate or smaller species, which we shall range according to their size and climate, and which, though all different from each other, may best be compared with the Grosbeaks, to which they are more analogous than to any other. We may name them the *Middle Grosbeaks* and the *Little Grosbeaks*.

V.

THE ROSE-THROAT*.

The first of these species of the middle size is that of the *Pl. Enl.* No. 153, fig. 2. termed *the Grosbeak of Louisiana*. Its throat is of a fine red rose-colour, and differs so much from all other species of the same genus, that it merits

* CHARACTER SPECIFICUS.

LOXIA LUDOVICIANA. L. nigra, pectore ventre alarum fascia basique remigum albis.—*Lath. Ind. Orn.* i. p. 379. No. 25.

LOXIA LUDOVICIANA.—*Gmel. Syst.* i. p. 861.

COCCOTHAUSTES LUDOVICIANA.—*Bris.* iii. p. 247. 14. t. 12. f. 2.

LE GROS-BEC de la LOUISIANE.—*Pl. Enl.* 153. f. 2.

LE ROSE-GORGE.—*Buff. par Sonn.* xlvii. p. 27.

RED-BREASTED GROSBEAK.—*Arct. Zool.* No. 212.—*Lath. Syn.* iii. p. 126. 24.

HABITAT

in Ludovicia.—6½ pollices longa.

W.

a distinct name. Brisson first mentioned this bird, and has given a tolerably good figure of it; but he says nothing of its habits. The settlers in Louisiana could inform us*.

* The female is spotted with white on the head. It inhabits the greater part of North America: in the state of New York it is reckoned a scarce bird. It appears there in May, and retires in August.

VI.

THE GRIVELIN*.

The second species of the middling Grosbeaks is Fig. 1. No. 309, *Pl. Enl.* and there termed *the Brazilian Grosbeak*. We have given it the name of *Grivelin*, because the under part of its body is speckled like as in the thrushes (*grives*). As it is a beautiful bird, and unlike

* CHARACTER SPECIFICUS.

LOXIA BRASILIANA. L. fusca, subtus rufescens maculis albis nigro annulatis, capite abdomineque medio rubris, lunula nuchæ caudaque apice albis.—*Lath. Ind. Orn.* i. p. 377. No. 19.

LE GRIVELIN.—*Buff, par Sonn.* xlvii. p. 29.

LE GROS-BEC du BRESIL.—*Pl. Enl.* 309. f. 1.

BRAZILIAN GROSBEAK.—*Lath. Syn.* iii. p. 122. 18.

HABITAT

in Brasilia.—5½ pollices longa.

W.

any other, it merited an appropriated name. It seems to be much related to the bird mentioned by Marcgrave, and which is called in Brazil *Guira*, *Tirica*. However, as the short description given by that author does not exactly correspond with our Grivelin, we cannot decide with regard to the identity of the species.

These middle-sized species, and those still smaller, are much more like the sparrow in point of bulk and shape; but we have allowed them to remain with the Grosbeak, because their bill resembles that of these birds, and is much broader at the base than that of the sparrow.

VII.

THE RED BLACK *.

The third species of the middle-sized Grosbeak is the bird delineated Fig. 2, No. 309, *Pl. Enl.* under the name of *the Cayenne Grosbeak*. We have called it the *Red Black*, because the whole of its body is red, and the breast and belly black. This bird, which is brought from Cayenne, has been noticed by no naturalist; but as we did not see it alive, we cannot describe

* *LE ROUGE-NOIR*.—*Buff. par Sonn.* xlvii. p. 31.

LE GROS-BEC de CAYENNE.—*Pl. Enl.* 309. 2.—*Lath.*

Syn. iii. p. 121. 16. Var. A.

its habits. The people of Guiana could instruct us in that point *.

* The plumage of the female is orange, inclining to a dirty green. W.

VIII.

THE FLAVERT*†.

The fourth species of these foreign middle-sized Grosbeaks is the bird Fig. 2, No. 152, *Pl. Enl.* termed *the Cayenne Grosbeak*. It is yellow and green, and therefore differs from the preceding almost as much as it can do with regard to colours; but as its size, the shape of its body and of its bill, and its climate, are the

* CHARACTER SPECIFICUS.

LOXIA CANADENSIS. *L. viridi-olivacea, subtus flavo-olivacea, capistro nigro.*—*Lath. Ind. Orn.* i. p. 379. No. 29.

LOXIA CANADENSIS.—*Gmel. Syst.* i. p. 856.

COCCOTHAUSTES CAYANENSIS.—*Bris.* iii. p. 220. 4. t. 11. f. 3.

LE FLAVERT GROS-BEC de CAYENNE.—*Buff. Pl. Enl.* 152. f. 2.—*Buff. par Sonn.* xlvii. p. 32.

CANADA GROSBEEK.—*Arct. Zool.* ii. No. 220.—*Lath. Syn.* iii. p. 127. 27.

HABITAT

in America.

W.

† i. e. The yellow-green.

same, we may reckon it a species closely related to the red black, if it be not a variety arising merely from the difference of age or sex. Brisson is the first who took notice of it.

IX.

THE FAN-TAILED GROSBEEK*.

The fifth species of these birds is that figured *Pl. Enl.* No. 380, under the name of *the Fan-tail of Virginia*. We received it from that part of America, and it has not been noticed by any preceding author. The upper figure, No. 380, represents probably the male, and the under the female, for its colours are not so vivid. We received these birds alive, but not being able to preserve them, we could not decide whether we should attribute the differences to sex or to age.

* CHARACTER SPECIFICUS.

LOXIA FLABELLIFERA. L. rubro-fusca, subtus rubescens, remigibus caudaque fuscis.—*Lath. Ind. Orn.* i. p. 380. No. 30.

LOXIA FLABELLIFERA.—*Gmel. Syst.* i. p. 850.

LA QUEUE EN EVENTAIL.—*Buff. Pl. Enl.* 380.—*Buff. par Sonn.* xlvii. p. 34.

FAN-TAILED GROSBEEK.—*Lath. Syn.* iii. p. 128. 28.

HABITAT

in Virginia.

W.

They are so remarkable for the shape of their tail, which is expanded horizontally, that this character alone is sufficient to distinguish them from others of the same genus.

X.

THE PADDA, OR RICE-BIRD*.

The sixth species is the Chinese bird described and figured by Edwards, and which he names *Paddu*, or *Rice-Bird*, because the Chinese call rice in the husk *padda*, which is the food of this bird. This author has painted two of these

* CHARACTER SPECIFICUS.

LOXIA ORYZIVORA. L. fusca, temporibus albis, rostro rubro, capite caudaque nigris.—*Lath. Ind. Orn.* i. p. 380. No. 91.

LOXIA ORYZIVORA.—*Osborn. It.* 103.—*Gmel. Syst.* i. p. 850.

COCCOTHRAUSTES SINENSIS SINEREA.—*Bris.* iii. p. 244. 12. t. 11. f. 2.

LE GROS-BEC de la CHINE.—*Pl. Enl.* 152. f. 1.

LE PADDA, ou l'OISEAU DE RIZ.—*Buff. par Sonn.* xlvii. p. 56.

JAVA GROSBEAK.—*Edw.* t. 41. 42.—*Lath. Syn.* iii. p. 120. 29.—*Id. Sup.* p. 151.

HABITAT

ad Caput Bonæ Spei, Java, China; apud nos in caveis alitur.
W.

birds, and supposes, with great probability, that *Pl.* 41 represents the male, and *Pl.* 42 the female. We had a male of this species, which is delineated Fig. 1, 'No. 152, *Pl. Enl.* It is an exceedingly beautiful bird; for besides the lustre of the colours, its plumage is so perfectly regular, that no feather projects beyond another, but they appear covered entirely with down, or rather with a sort of meal, such as we perceive in plums, which produces a fine gloss. Edwards adds little to the description of this bird, though he saw it alive. He says only that it is very destructive among the plantations of rice; that the traders to the East Indies call it *the Javan, or Indian Sparrow*; that this appellation would imply that it is found in the East Indies, as well as in China; but he is rather disposed to think that the Europeans, in their intercourse between China and Java, had often carried these birds to that island; and lastly, that what proves them to be natives of China is, they are painted on the Chinese paper and muslins.

The species which we are now to describe are smaller than the preceding, and consequently differ so much from our Grosbeaks, that we could hardly refer them to the same genus, did not the shape of their bill, the figure of their body, and even the order and position of their colours, indicate that these birds, though not ex-

actly Grosbeaks, are still nearer related to them than to any other genus.

XI.

THE TOUCNAM COURVI*.

The first of these small foreign Grosbeaks is the *Toucnam Courvi* of the Philippines, of which Brisson has given a description, with a figure of the male, under the name of *the Philippine Grosbeak*, and which is delineated Fig. 2, No. 135, *Pl. Enl.* by that denomination. But we have here preserved the name which it receives in its native climate, because it differs from all the rest. The female is of the same size with the male, but its colours are different, its head being brown, and also the upper part of its neck,

* CHARACTER SPECIFICUS.

LOXIA PHILIPPINA. L. fusca subtus albido-flavicans, vertice pectoreque luteis, gula fusca.—*Lath. Ind. Orn.* i. p. 380. No. 32.

LOXIA PHILIPPINA.—*Gmel. Syst.* i. p. 860.—*Bris.* iii. p. 232. 6. t. 12. f. 1. (*mas.*)—t. 18. f. 1. 2. (*nidus.*)

LE TOUCNAM-COURVI.—*Buff. Pl. Enl.* 135. 2. (*mas.*)—*Buff. par Sonn.* xlvii. p. 40.

PHILIPPINE GROSBEEK.—*Lath. Syn.* iii. p. 129. 30.

HABITAT

in Philippinis; magnitudine Passeris.

W.

which in the male is yellow, &c. Brisson gives also a figure and description of their nest*.

* These birds construct a nest of a singular form. It is composed of little interwoven fibres of leaves, which form a sort of small pouch, whose mouth is placed in one of the sides. To this mouth is fitted a long passage, composed of the same leafy fibres, turned downwards, with its aperture situated below, so that the real entrance to the nest is entirely concealed. These nests are fastened by their upper part to the small branches of trees.—BRISSON.

XII.

THE ORCHEF*.

The second of these little foreign Grosbeaks is the East-India bird delineated *Pl. Enl.* No. 393, Fig. 2, under the name of *Indian Grosbeak*.

* CHARACTER SPECIFICUS.

LOXIA BENGALENSIS. L. grisea, pileo-flavo, temporibus albidis, abdomine albido fusco maculato.—*Lath. Ind. Orn.* i. p. 382. No. 30.

LOXIA BENGALENSIS.—*Gmel. Syst.* i. p. 857.—*Bris.* iii. p. 95. 11.

L'ORCHEF.—*Buff. par Sonn.* xlvii. p. 43.

LE GROS-BEC des INDES.—*Pl. Enl.* 393. f. 2.

YELLOW-HEADED INDIAN SPARROW.—*Edw.* t. 189.

BENGAL GROSBEEK.—*Lath. Syn.* iii. p. 133. 33.

HABITAT

in Bengala.

W.

I have termed it *Gold-head (Orchef)*, because the upper part of its head is of a fine yellow, and being different from all the rest, required a distinct name.---This species is new, and has not been noticed by any preceding naturalist.

XIII.

THE NUN GROSBEAK *.

The third of these little species is that of Fig. 3, No. 393, *Pl. Enl.* which we have called *the Nun*, because it has a sort of black bigger on its head. It is a new species also; but we can say nothing more of it, being unacquainted with its native climate. We bought it from a dealer in birds, who could give us no information on that subject:

* CHARACTER SPECIFICUS.

LOXIA COLLARIA. L. flavescens, pectore collarique flavis, temporibus nigris.—*Lath. Ind. Orn.* i. p. 382. No. 37.

LOXIA COLLARIA.—*Gmel. Syst.* i. p. 857.

LE GROS-BEC NONETTE.—*Buff. Pl. Enl.* 393. f. 3.—*Buff. par Sonn.* xlvii. p. 45.

NUN GROSBEAK.—*Lath. Syn.* iii. p. 133. 34.

HABITAT

in Indis.

W.

XIV.

THE GRÈY GROSBEEK*.

The fourth of these is new, and as little known as the preceding. It is Fig. 1, No. 393, *Pl. Enl.* called *the Virginia Grosbeak*. But we shall term it *grey-white* (*Grisalbin*), because its neck and part of its head is white, and all the rest of the body grey; and as it differs from the others, it merits an appropriated name.

* CHARACTER SPECIFICUS.

LOXIA GRISEA. L. cœruleo-grisea, facie colloque inferiore albis.—*Lath. Ind. Orn.* i. p. 382. No. 38.

LOXIA GRISEA.—*Gmel. Syst.* i. p. 857.

LE GRISALBIN.—*Buff.*

LE GROS-BEC de VIRGINIE.—*Pl. Enl.* 393. f. 1.

GREY GROSBEEK.—*Arct. Zool.* ii. No. 219.—*Lath. Syn.* iii. 134. 35.

HABITAT

in Virginia.

XV.

THE QUADRICOLOR.

The fifth of these little foreign Grosbeaks is the bird described by Albin, under the name of *the Chinese Sparrow*, and afterwards by Brisson *, under that of *the Java Grosbeak*, and delineated Fig. 2, No. 101, *Pl. Enl.* by the same name. We shall, however, term it *the Quadricolor*, to distinguish it from all the rest, and mark its principal colours; for it is a beautiful bird, and painted with four brilliant colours; the head and neck being blue, the back, the wings, and the end of the tail, green; there is a broad red bar, like a girth, under the belly, and on the middle of the tail; and lastly, the rest of the breast and belly is light-brown or hazel. We are ignorant of its habits.

* The female, says this author, differs from the male, its thighs being of a light chesnut, and the colour of its tail not so vivid.

XVI.

THE JACOBINE, and the DOMINO

The sixth of these is the bird known to the curious by the name of *Jacobine*, which we retain as applicable and discriminating. It is represented *Pl. Enl. Fig. 3*, No. 139, and titled "The Java Grosbeak, called the Jacobine †." We conceive that Fig. 1, of that plate, termed

* CHARACTER SPECIFICUS.

LOXIA MALACCA. *L. ferruginea*, capite abdominique nigris, rostro cœruleo.—*Lath. Ind. Orn. i. p. 385. No. 51.*

LOXIA MALACCA.—*Gmel. Syst. i. p. 851.*

COCCOTHAUSTES JAVENSIS.—*Bris. iii. p. 237. 8. t. 13. f. 1.*

LE JACOBIN.—*Buff. Pl. Enl. 139. f. 3.—Buff. par Sonn. xvii. p. 47.*

WHITE-BREASTED INDIAN SPARROW.—*Edw. t. 355.—Osb. Voy. ii. p. 329. 4.*

MALACCA GROSBEEK.—*Lath. Syn. iii. p. 140. 47.*

HABITAT

in China, Java, Malacca.—4½ pollices longa.

W.

† According to Virey, the Jacobine and Quadricolor are of the same species. The Jacobine is found in Java, Malacca, and China. It is gregarious, and feeds on seeds of different kinds, especially rice. Mauduyt kept several alive. They sometimes appear to be convulsed, and utter painful cries.

W.

the Molucca Crossbill, is of the same species, and probably a female of the first. We have seen these birds alive, and fed them like canaries. Edwards describes and figures them by the name of *Coury* *, Pl. 40, and from the meaning of this word; he infers that they inhabit India, and not China †. We would have adopted this term, had not that of *Jacobine* already come into use. Fig 2, No. 139, and Fig. 1, No. 153, are two birds which the virtuosi call *Dominos*, and which they distinguish from the Jacobines. They are smaller indeed, but ought to be regarded as varieties of the same species. The males are probably those which have the belly spotted, and the females those which have it of an uniform white-grey. The description of them occurs in Brisson's work, but not a word is said of their natural habits.

* It is called a *Cowrie*, because its ordinary price is one of the small shells which pass in India for money; but these are not current in China.

† It is the *Loxia Punctularia* of Linnæus, the *Coccothraustes Javensis* *Navia* of Brisson.

XVII.

THE BAGLAFECHT*.

This is an Abyssinian bird, much resembling the *Toucnam Courvi*; the only difference consisting in the shades or arrangement of the colours. The black-spot which is on both sides of the head rises in the Baglafecht above the eyes; the brown and yellow marbling of the upper part of the body is less marked, as are also the great coverts of the wings and their quills; those of the tail are greenish-brown, edged with yellow. Its iris is yellowish, and its wings, when closed, reach near the middle of the tail.

The Baglafecht resembles the *toucnam courvi* also in the precautions which it takes to secure its eggs against rain, and every sort of danger; but the form of its nest is different. The bird rolls it into a spiral nearly like the *Nautilus*, and suspends it, as does the *toucnam courvi*, at the extremity of a small branch, almost always

* CHARACTER SPECIFICUS.

LOXIA PHILIPPINA. L. cauda remigibusque virescente-fuscis margine flavis.—*Lath. Ind. Orn.* i. p. 381. No. 32. Var. β .

LE BAGLAFECHT.—*Buff. par Sonn.* xlvii. p. 53.

HABITAT

in Abyssinia.

W.

above stagnant water, the aperture constantly turned to the east, the quarter opposite to the rain. In this way the Baglafecht is not only sheltered from the wet, but secured from the intrusions of different sorts of animals, which seek to feed upon its eggs.

XVIII.

THE ABYSSINIAN GROSBEAK*.

I range among the Grosbeaks also the Abyssinian bird, which resembles them in the characteristic feature, the thickness of its bill, and likewise in the size of its body. Its iris is red, its bill, the top and sides of its head, its throat, and its breast, are black; the rest of the under part of the body, the thighs, and the upper part of the body, light yellow, but which assume a

* CHARACTER SPECIFICUS.

LOXIA ABYSSINICA. L. corpore flavo, vertice genis gula pectoreque nigris, alis caudaque fuscis.—*Lath. Ind. Orn.* i. p. 381. No. 33.

LOXIA ABYSSINICA.—*Gmel. Syst.* i. p. 860.

LE GROS-BEC d'ABYSSINIE.—*Buff. par Sonn.* xlvii. p. 56.

ABYSSINIAN GROSBEAK.—*Lath. Syn.* iii. p. 131. 31.

HABITAT

in Abyssinia.

W.

brown tinge where the black of the anterior part meets it, as if the two colours there melted into one; the scapular feathers are blackish, the coverts of the wings brown, edged with grey; the quills of the wings and of the tail are brown, edged with yellow, and the legs reddish-grey.

The most singular fact of the history of the Abyssinian Grosbeak, is the construction of its nest, and the sort of foresight which it discovers, in common with the toucan and the baglafecht. The shape of the nest is nearly pyramidal, and the bird is always careful to suspend it over the surface of water from the end of a small branch; the entry is in the side, and commonly faces the east; the cavity is divided by a partition into two compartments; the first is a kind of court into which the bird enters, then creeping along the inclosure, it descends into the second chamber, where its eggs are laid. By means of this complex construction, the eggs are sheltered against the rain, from whatever quarter the wind blows: and we may observe, that in Abyssinia the wet season lasts six months: for it is a general remark, that inconvenience and hardship quicken industry, unless they be so excessive as to extinguish it entirely. In that country the bird was exposed not only to the penetrating rains, but to the attacks of the monkeys, the squirrels, the serpents, &c. It seems to have foreseen the dangers that threaten its family, and to have artfully provided against them. This species is new, and

we owe all our information on the subject to Mr. Bruce.

XIX.

THE GUIFSO BALITO*.

There is no European species to which this foreign bird is more related than the Grosbeak. It shuns inhabited places, and lives retired in the unfrequented forests. It is languid in its amours, and destitute of song; and its only noise almost is made by the strokes of its bill, in piercing the nuts to extract the kernel.---So far the analogy applies. But it differs from the Grosbeak by two remarkable properties; 1st, its bill is indented on the edges; and, 2dly, its

* CHARACTER SPECIFICUS.

LOXIA TRIDACTYLA. *L. nigra*, capite collo inferiore vitta-
que longitudinali abdominis rubris, tectricibus alarum fus-
cis albo marginatis.—*Lath. Ind. Orn.* i. p. 397. No. 93.

LOXIA TRIDACTYLA.—*Gmel. Syst.* i. p. 866.

LE GUIFSO BALITO.—*Buff. par Sonn.* xlvii. p. 59.

THREE-TOED GROSBEEK.—*Lath. Syn.* iii. p. 159. 85.

HABITAT

in Abyssiniæ nemoribus.

W.

† The full name of this bird, as it is written in Mr. Bruce's drawings, is *Guifso Balito Dimmo Won Jerck*.

feet have only three toes, two before and one behind, which is an uncommon disposition, and occurs only in a few species. These two discriminating features seem to me so important, that the bird required an appropriated name, and I have preserved that by which it is known in its natal region.

The head, the throat, and the fore part of the neck, are of a fine red, which extends in a pretty narrow stripe under the body, as far as the lower coverts of the tail. All the rest of the under part of the body, the upper part of the neck, the back, and the tail, are black; the upper coverts of the wings brown, edged with white, the quills of the wings brown, with a greenish border, and the legs of a very dull red. The wings when closed reach not beyond the middle of the tail.

XX.

THE SPOTTED GROSBEAK of the Cape of Good Hope*.

The bird represented by this name, Fig. 1, No. 639, *Pl. Enl.* though different from the

* CHARACTER SPECIFICUS.

BOXIA CAPENSIS. L. fusca, pennis medio nigris, subtus al-bida nigro striata, tectricibus alarum uropygioque luteis.—
Lath. Ind. Orn. i. p. 373. No. 7. Var. β.

European Grosbeaks in its colours, and the distribution of its spots, appears so much a-kin to that species, that it may be regarded as a variety produced by climate, for which reason we have given it an appropriated name. And Sonnerat assures us positively that it is the same with that of the first article; and he adds, that these birds appear different, because they change their colours every year.

LOXIA NÆVIA.—*Gmel. Syst. i. p. 845.*

LE GROS-BEC TACHETE' du CAP DE B. E.—*Pl. Enl. 659.*
f. 1.—Buff. par Sonn. xlvii. p. 61.—Lath. Syn. iii. 114. 7. A.

HABITAT

ad Caput Bonæ Spei.

W.

XXI.

THE CRAVATED GRIVELIN*.

The bird delineated *Pl. Enl. No. 659, Fig. 2*, under the denomination of the Angola Grosbeak, because we received it from that province of Africa, appears to be related to the *Grivelin*; and as all the neck and the under part of the throat is covered and encircled by a sort of white cravat, which extends even over the bill, we have given it the name of the *Cravated Grivelin*. We are ignorant of its habits.

* LOXIA COLLARIA.—*Lath. Syn. iii. p. 134. A.*



FIG 1 THE SLAIRROW. FIG 2 THE MOUNTAIN SPARROW.

THE HOUSE SPARROW *

As the species of Sparrow comprehends a multitude of individuals, so its genus seems at

* FRINGILLA.

CHARACTER GENERICUS.

Rostrum conicum, rectum, acuminatum.

CHARACTER SPECIFICUS.

FRINGILLA DOMESTICA. F. remigibus reatricibusque fuscis, corpore griseo nigroque, fascia alarum alba solitaria,—*Lath. Ind. Orn.* i. p. 432. No. 1.

FRINGILLA DOMESTICA.—*Gmel. Syst.* i. p. 925.

PASSER DOMESTICUS.—*Raii Syn.* p. 86. A.—*Will.* p. 182. —*Bris.* iii. p. 72. 1.

LE MOINEAU.—*Buff. Pl. Enl.* 6. f. 1. (*Avis Adulta.*)—*Id.* 55. f. 1. (*junior.*)—*Buff. par Sonn.* xlvii. p. 115. pl. 104. fig. 1.

HOUSE SPARROW.—*Br. Zool.* i. No. 127. t. 51.—*Arct. Zool.* ii. p. 382. G.—*Will. (Angl.)* p. 249. t. 44.—*Lath. Syn.* iii. p. 248. 1.—*Id. Sup.* p. 163.—*Bew. Birds,* i. p. 158.

HABITAT

in Eurōpa passim, Africa, Asia.

W.

+ In Greek, Τριγλίτης. Most translators and naturalists have made it to be Στευθες: the fact is, that this last name is

first inspection to include a number of species. One of our nomenclators reckons it to contain no less than sixty-seven different species, and ~~nine~~ varieties, making in all seventy-six birds *; among which we are surprised to find many linnets, finches, green birds, Canary birds, Bengal birds, Senegal birds, Mayo birds, cardinals, buntings, and many others not related to the Sparrows, and which ought to be distinguished by separate names.° To introduce order into this confused group, we shall first remove from the Sparrow, with which we are well acquainted, all the birds just mentioned, which are also sufficiently known to enable us to decide that they do not belong to the same genus. Following then our general plan, we shall consider each of those which inhabit Europe a principal species, and afterwards refer to them the analogous foreign kinds.

We shall also separate from the Common or House Sparrow the *Field Sparrow*, and the *Wood Sparrow*; two birds more related than any of the preceding, and also inhabitants of our climate; to each we shall allot a distinct article. This is surely the only way to avoid confusion.

Our Sparrow is too well known to need a description. It is represented No. 6 and 55; *Pl.*

generic, and applicable to all the Sparrows: in Italian, *Passere*, or *Passere Casarino*: in Spanish, *Pardal*: in German, *Huss-Spar*, *Haus-Sperling*: in Swedish, *Taelting*, *Grawparf*.

* Brisson.

Ent. Fig. 1. No. 6 is the adult male after it has cast its feathers; and Fig. 1, No. 55, the young male before moulting. The change of colour in the plumage, and in the angles of the mandibles, is general and uniform; but the same species is subject to accidental varieties; for some House Sparrows are white, others variegated with brown and white, and others almost entirely black*, and others yellow†. The only difference between the females and the males is, that the former are smaller, and their colours much fainter.

Besides these first varieties, some of which are general, and others individual, and which occur in all the European climates, there are others in more distant regions; which would prove that this species is spread from the north to the south in our continent, from Sweden‡ to Egypt§, Senegal, &c.

But in whatever country the Sparrow is settled, it never is found in desert places, or at a distance from the residence of man. It likes neither

* Black Sparrows occur in Lorraine; but they are undoubtedly the common sort, which as they lodge constantly in the glass-houses, which are frequent along the foot of the mountains, are smoked. Dr. Lottinger being in one of these glass-houses, observed a flock of common Sparrows, among which were several black ones. An old person, who dwelt on the spot, told him, that they sometimes appeared so much disguised, that they could not be distinguished.

† Aldrovandus.

‡ Linnæus.

§ Prosper Alpinus.

woods nor vast plains. It is more frequent in towns than in villages; nor is it seen in the hamlets or farms that are buried in the depth of forests. It follows society to live at their expense; and indolence and voracity lead it to subsist on the provisions of others. Our granaries, our barns, our court-yards, our pigeon-houses, and, in short, all places where grain is spilt, are its favourite resort. It is extremely destructive; its plumage is entirely useless, its flesh indifferent food, its notes grating to the ear, and its familiarity and petulance disgusting. In some places Sparrows are proscribed*, and a price set on their heads.

But what will render them eternally troublesome and vexatious, is not only their excessive multiplication, but their subtlety, their cunning, and their obstinacy to abide in places which suit them. They are crafty and artful, easily distinguish the snares laid for them, and wear out the patience of those who try to catch them. It is only in seasons of scarcity, and when the snow covers the ground, that the sport will succeed; and little impression can be made on a species which breeds thrice a year. Their nest consists of hay, lined with feathers. If you destroy it, they will in twenty-four hours build another; if

* In many villages of Germany, the peasants are obliged annually to produce a certain number of Sparrows' heads.—
FRISCH.

you plunder the eggs, which are five or six * often more, they will in the course of eight or ten days lay others; if you drive them from the trees or the houses, they will resort in greater numbers to your granaries. Persons who have kept them in cages, assure me, that a single pair of Sparrows consume near twenty pounds of corn annually. We may judge from their numbers what prodigious destruction they must make in our fields; for though they feed their young with insects, and eat many themselves, they principally subsist on our best grain. They follow the labourer in seed-time, and the reaper in harvest. They attend the threshers at the barns, and the poulterer when he scatters grain to his fowls. They visit the pigeon-houses, and even pierce the craw of the young pigeons to extract the food. They eat bees, and are thus disposed to destroy the only insects useful to man. In short, it is much to be wished that some method could be devised for destroying them. I have been told, that if sulphur were smoked under the trees, where in certain seasons they assemble and sleep at night, they would be suffocated and drop dead. I have tried the experiment, without success, though I took much pains, and was interested in the issue; for I could not get them driven from the neighbourhood of my voleries; and I perceived


* Olin says, that they lay sometimes eight, and never fewer than four.

that they not only disturbed the warbling of my birds, but that by the continual repetition of their harsh cry, *tui, tui*, they sensibly spoiled the song of the canaries, siskins, linnets, &c.

I then placed on a wall, covered with great Indian chesnuts, in which the Sparrows assembled in great numbers in the evening, pots filled with sulphur, mixed with a little charcoal and rosin; and these substances being set on fire, caused a thick smoke, which had no effect but to waken the birds. As the volume ascended, they removed to the tops of the trees, and then retired to the neighbouring houses, but not one dropped. I observed only that they did not for three days visit the trees that were smoked, but afterwards returned to their former habit.

As these birds are hardy, they can be easily raised in cages, and live several years, especially if the females be withheld from them*; for it is said that their excessive venery abridges the period of their lives. When they are taken young, they are so docile as to obey the voice and catch somewhat of the song of those birds with which they are bred; and being naturally

* "Some suppose that the male Sparrows cannot live longer than a year. The proof is, that none are observed to have a black beard in the spring, but only some time after, as if none had survived the preceding season. It is alleged that the females are more vivacious; for they are caught along with young ones, and are distinguished by the hardness of their bills."—*Arist. Hist. Anim. lib. x. 7.*



familiar, they become more so in the state of captivity. But when at liberty, they are rather solitary; and hence, perhaps, the origin of their name*. Since they never leave our climate, and are always about our houses, it is easy to perceive that they commonly fly single or in pairs. There are, however, two seasons in the year when they assemble, not to fly in flocks, but to chirp together, in autumn on the willows by the river sides, and in spring on the firs and other evergreens. They meet in the evening, and in mild weather. They spend the night on the trees, but in winter they are found either alone or with their females in a hole of the wall, or beneath the tiles of roofs. And it is only in excessive frosts that five or six are found lying together, probably to keep themselves warm.

The males fight obstinately for the possession of their females, and in the violence of their struggle, they often fall to the ground. Few birds are so ardent, or so vigorous in their love. They can embrace twenty times in succession with the same fire, the same trepidation, and the same expressions of rapture. What is singular, the female first shews a degree of impatience at a sport which must fatigue her less than the male, but which may also yield her less pleasure, since there are no preludes, no

* Perhaps the French word *Moineau* is derived from the Greek *Μονος*, *solus*.

caresses, no adjustment. Much petulance is shewn without tenderness, and a flutter of action which betrays only a selfish appetite. Compare the loves of the pigeon with those of the Sparrow, and you will perceive almost all the shades from the physical to the moral qualities.

These birds nestle commonly under the tiles, in the lead-gutters, in holes of the wall, in pots that are erected for them, and often about the sides of windows which have Venetian blinds. A few, however, build their nests in trees. I have received some of these which were found in large chesnuts and lofty willows. They placethem on the summit of thesetrees, and construct them with the same materials, viz. hay on the outside and feathers within; but what is singular, they add a sort of cap above which covers the nest, so as to prevent the water from penetrating, and leave an opening for entering at under this cap. When they lodge in holes or covered places, they judiciously dispense with this cap. Instinct discovers here a sort of reasoning, and at least implies a comparison of two small ideas. Some House Sparrows, more indolent, though bolder than the rest, do not give themselves the trouble of building, but drive off the martins, and possess their nests. Sometimes they fight the pigeons, and establish themselves in the holes.—This little tribe exhibit therefore habits and instincts more varied and perfect than most other birds. This results undoubtedly from their living in society. They

enjoy the benefits of the domestic state without surrendering any portion of their independence. Hence that subtlety, that circumspection, and that accommodation of instinct to situations and circumstances*.

* The House Sparrow is nearly six inches long: its eggs are ash-white, with thick dusky spots. The male is distinguished by his black throat; the female has a duller plumage. They occur throughout Europe, and in Africa and Asia.

FOREIGN BIRDS

WHICH ARE RELATED TO THE HOUSE SPARROW.

I.

THE bird, delineated fig. 1, No. 223, *Pl. Enl.* under the name of *Senegal Sparrow**. We shall retain that denomination, since it appears to be of the same species with the Common House Sparrow. The only difference is, that the bill, the top of the head, and the lower parts of the body, are reddish; whereas, in the European Sparrow, the bill is brown, the crown of the head, and the lower parts of the body, grey. But in every other respect they are the same; and

* CHARACTER SPECIFICUS.

EMBERIZA QUELEA. E. rufo-rubra, supra fusco nigricante variegata, facie gulaque nigra.—*Lath. Ind. Orn.* i. p. 409. No. 31. Var. β .

LE MOINEAU du SENEGAL.—*Buff. par Sonn.* xxxvii. p. 137.—*Pl. Enl.* 223. f. 1.—*Lath. Syn.* iii. p. 193. 28. A.

HABITAT

in Senegala.

W.

we may regard the difference of colour as resulting from the influence of climate.

The bird of which the male and female are in fig. 1, and 2, No. 665, *Pl. Enl.* appears to be only a variety of this.

II.

We may extend these remarks to the bird fig. 2, No. 183, *Pl. Enl.* termed the *Red-billed Senegal Sparrow**, which we shall consider, especially since it belongs to the same climate with the preceding, as a variety of it, occasioned by difference of age or sex.

* CHARACTER SPECIFICUS.

EMBERIZA QUELEA. *E. grisea*, fronte nigra, rostro eoccineo.—*Lath. Ind. Orn.* i. 409. No. 31.

EMBERIZA QUELEA.—*Gmel. Syst.* i. p. 877

PASSER SENEGALENSIS ERYTHRORYNCHOS.—*Bris.* iii. p. 110. 19. t. 6. f. 1.

LE MOINEAU à BEC ROUGE.—*Buff. Pl. Enl.* 183. f. 2.—*Buff. par Sonn.* xlvii. p. 141.

PASSER ERYTHRORYNCHOS CAP. B. SPEI.—*Bris.* iii. p. 108. 13. t. 5. f. 4. (*femina*?)

BLACK-FACED BUNTING.—*Lath. Syn.* iii. p. 192. 28.

HABITAT

in Africa.—4½ pollices longa.

W.

III.

THE BLACK SPARROW*.

There are other foreign birds, however, which, though analògous to the House Sparrow, must be regarded as of a different species. Such is the American bird, which the inhabitants of the French West-India islands call the *Black Father* (*Père Noir*). It is represented fig. 1, No. 201, *Pl. Enl.* It would appear to be settled not only in these islands, but on the continent of South America, as at Mexico; for it is mentioned by Fernandez under the Mexican name of *Yohualtototl*, and described by Sir Hans

* CHARACTER SPECIFICUS.

FRINGILLA NOCTIS. F. nigra, gula lorisque rufis, rostro nigro.—*Lath. Ind. Orn.* i. p. 441. No. 24.

FRINGILLA NOCTIS.—*Gmel. Syst.* i. p. 909.

PASSER NIGER.—*Bris.* iii. p. 118. 23. t. 7. f. 1.

YOHUALTOTOTL.—*Raii Syn.* p. 171.

LE PERE NOIR.—*Buff. Pl. Enl.* 201. f. 1.—*Buff. par Sonn.* xxxvii. p. 143.

RUFIOUS CHINNED FINCH.—*Lath. Syn.* iii. p. 267. 20.

HABITAT

in America australi et Caribbæis.

W.

Sloane as a native of Jamaica *. We suppose also that the two birds, figured No, 224, are only varieties of this. The only thing which weakens this conjecture is, that they were found in climates very distant from each other : 1. from Macao, the 2d from Java, and the 3d from Cayenne. I still conceive, however, that they are varieties of the Black Sparrow ; for the climates allotted to them by the importers are not to be considered as certain ; and besides, this species may occur equally in the hot countries in both continents.

There are others also which may be regarded as varieties of this species. The *Brazil Sparrow*, of which fig. 1, No. 291, *Pl. Enl.* is the male, and fig. 2, the female, resembles the Black Sparrow, so that we cannot hesitate to assign it the same place. The resemblance is indeed the most perfect in the male, for the female differs widely in its colours ; but this circumstance only apprises us of the uncertainty of any classification founded on the plumage.

Lastly, there is another species which we should range with the Black Sparrow, but for the great difference in the length of the tail. This bird is delineated fig. 1, No. 183, *Pl. Enl.* under the name of the *Sparrow of the kingdom of Juida*. We may consider it as a variety of the Black Sparrow, distinguished by its long tail,

* The Black Sparrow marked with saffron dots.—SLOANE.

which consists of unequal quills. If we have been rightly informed with respect to the climates, it would appear that the Black Sparrow is found in the Antilles, in Jamaica, in Mexico, in Cayenne, in Brazil, in the kingdom of Juida, in Abyssinia, in Java, and as far as Macao; that is, in all the tropical countries, both of the New and of the Old Continent.

IV.

THE DATE SPARROW * †.

Dr. Shaw speaks of this bird in his Travels, under the name of the *Capsa Sparrow*, and Mr.

* CHARACTER SPECIFICUS.

FRINGILLA CAPSA. F. rufo-grisea, facie gulaque alba, alis caudaque nigris, cauda forficata.—*Lath. Ind. Orn.* i. p. 440. No. 20.

FRINGILLA CAPSA.—*Gmel. Syst.* i. p. 912.

LE DATTIER.—*Voy. en Barb.* i. p. 272.—*Buff. par Sonn.* xvii. p. 151.

CAPSA SPARROW.—*Shaw's Trav.* p. 253.

—— FINCH.—*Lath. Syn.* iii. p. 265. 17.

HABITAT

in Abyssinia, Barbaria; gregaria.

W.

† Mr. Bruce, after having attentively examined this bird, found it to be the same with the Mascoulouf of Abyssinia. It

Bruce has shewn me a miniature drawing of it, from which I have made the following description :

The Date Sparrow has a short bill, thick at the base, with some whiskers near the angles of its junction ; the upper mandible is black, the lower yellowish, and also the legs ; the nails black, the anterior part of the head and throat white, the rest of the head, the neck, the upper, and even the lower surface of the body, grey, tinged with reddish ; but the tint is deepest on the breast*, and on the small upper coverts of the wings ; the quills of the wings and of the tail are black ; the tail is slightly forked, pretty long, and stretches two-thirds beyond the extremity of the wings.

This bird flies in flocks ; it is familiar, and ventures to pick up grains at barn-doors. In that part of Barbary, south of the kingdom of Tunis, it is as common as the House Sparrow in France ; but it sings much better, if what Shaw advances be a fact ; that its warble is superior

is there called also *the Bird of the Cross*, because it usually arrives the day of the Exaltation of the Holy Cross, which denotes the close of the rainy season. Mr. Bruce adds, that at the sources of the Nile a bird appears after the rains which resembles much the Mascalouf, except that it has a much shorter tail.

* Shaw speaks of some reflections which he perceived on its breast.

to that of the Canaries and nightingales *. It is a pity that it is too delicate to be carried out of its native country ; at least all the attempts that have hitherto been made of transporting it alive have proved unsuccessful.

* I should have been tempted from the fineness of its notes to range it with the Canaries ; but Mr. Bruce, who had often seen it, and to whom I communicated my idea, persisted in his opinion, that it ought to be classed with Sparrows.

THE TREE SPARROW*†.

THIS bird is undoubtedly of a different species from the House Sparrow. Though they inhabit the same climate and the same tracts,

* CHARACTER SPECIFICUS.

FRINGILLA MONTANA. F. remigibus rectricibusque fuscis, corpore griseo nigroque, alarum fascia alba gemina.—*Lath. Ind. Orn.* i. p. 433. No. 2.

FRINGILLA MONTANA.—*Gmel. Syst.* i. p. 925.

PASSER MONTANUS.—*Raii Syn.* p. 87. 15.—*Will.* p. 185.—*Bris.* iii. p. 79. 2.

LOXIA HAMBURGIA.—*Gmel. Syst.* i. p. 854.

PYRRHULA HAMBURGENSIS.—*Bris.* iii. p. 314. 2.

LE FRIQUET.—*Buff. Pl. Enl.* 267. f. 1.—*Buff. par Sonn.* xlvii. p. 154. pl. 104. f. 2.

LE HAMBOUVREUX.—*Buff.* iv. p. 398.

HAMBURG TREE-CREEPER.—*Alb.* iii. t. 24.

———— GROSBEAK.—*Lath. Syn.* iii. p. 149. 64.

TREE or MOUNTAIN FINCH.—*Br. Zool.* No. 128.—*Arct. Zool.* ii. No. 246.—*Will. (Angl.)* p. 252. t. 25.—*Edw.* t. 269.—*Lath. Syn.* iii. p. 252. 2.—*Id. Sup.* p. 163.—*Bew. Birds,* i. p. 162.

HABITAT

in Europa, Asia, America.—5½ pollices longa.—In Anglia, provincia Eboracensi, non rara. W.

† In German, *Baum Sperling*, *Feld Spatz*, or *Rohr Spatz*.

they never associate together, and their habits are, for the most part, dissimilar. The House Sparrow never leaves our dwellings, but lodges and breeds in the walls and roofs. The Tree Sparrow seldom visits us, lives in the fields, haunts the sides of the roads, perches on shrubs and low plants, and builds its nest in crevices and holes at a little height from the ground. It is said to nestle also in the woods, and in the hollows of trees; but I have never seen them in the woods but transiently, and they certainly prefer the open fields. The House Sparrow flies heavily, and always to short distances; nor can it walk without hopping and making awkward movements. The Tree Sparrow, on the contrary, whirls round more smartly, and walks better. This species is not so numerous as that of the House Sparrow: and it is exceedingly probable that they hatch only once a-year, laying four or five eggs; for about the end of summer they assemble in great bodies, and remain together during the winter. It is easy in that season to catch them on the bushes where they sit.

After this bird has alighted, it is in a continual flutter, whirling, jerking its tail upwards and downwards, performing all these motions with tolerable grace: and hence comes its French name *friquet* (*frisky*). Though not so bold as the House Sparrow, it does not shun the presence of man; it often follows travellers, without showing any signs of timidity. It flies

with a wheeling motion, and always very low; for it never perches on large trees, and those who have called it the Chesnut Sparrow, have confounded it with the Ring Sparrow, which really lodges on lofty trees and on chesnuts.

This species is subject to variety. Many naturalists have reckoned the Mountain Sparrow*, the Collared Sparrow†, the Foolish Sparrow of the Italians, as specifically different from it. But the Foolish Sparrow is exactly the same bird, and the other sorts are only slight varieties‡.

What proves that the *Passera Mattugia* §, or Foolish Sparrow of the Italians, is either the Tree Sparrow, or a slight variety of it, distinguished only by the distribution of its colours, is, that Olina, who gives a figure and a description of it, says, that it receives the epithet of *Mattugia*, because it can never rest a single mo-

* In German, *Ringel Spatz*, *Ringel Sperling*, *Feld Sperling*, *Wald Sperling* : in Polish, *Wrobel-lesmf*, *Wrobel-polny*, *Mazurek*.

† In German, *Berg Sperling* : in Polish, *Wrobel garny* : in Greek, Στεθος αγγελος.

‡ The Mountain Sparrow and Collared Sparrow are the same bird, and differ from the Tree Sparrow only by the white or whitish collar on the top of the neck.

§ *Fringilla Stulta*.—*Gmel.* *Passer Stultus*.—*Eris.* The Foolish Sparrow.—*Will.* and *Lat.*

Specific character :—" It is grey-rufous, spotted with sooty, below yellowish, its eye-brows and two stripes on its wings white, a yellow spot on its throat, its tail blackish, and at the margin rufous."

ment in one place*; the same circumstance to which I attribute the origin of its French name. Would it not be very singular, that this bird, which is so common in France, should not at all be found in Italy, as our nomenclators have stated? On the contrary, it would seem that there are more varieties of this species in Italy than in France. It inhabits therefore the temperate and warmer regions, and not the cold climates, for it is not found in Sweden. But I am surprised that Salerne should say that this bird occurs not in Germany or England, since the naturalists of these countries have given figures and descriptions of it. Frisch even asserts, that the Tree Sparrow and the Canary bird can breed together, and that the experiment has been made in Germany.

The Tree Sparrow, though more restless than the House Sparrow, is not so petulant, so familiar, or so voracious. It is more innocent, and not so destructive to the crops. It prefers fruits, wild seeds, particularly those of the thistle, and also eats insects. It avoids meeting the House Sparrow, which is stronger and more mischievous. It can be raised in a cage, and fed like a goldfinch; it lives five or six years; its song is very poor, but quite different from the harsh cries of the House Sparrow. Though more gentle than the House Sparrow, it is remarked

* *Passer Sylvestris*.—*Aldrov.*

not to be so docile. This is owing to its living more out of the society of man*.

* The nest of the Tree Sparrow is composed of hay, hogs' bristles, and feathers. The bird never lays more than six eggs, which are of a dirty white spotted with brown. There is always one among them much smaller than the rest, and the bird produced from it is also diminutive. In Holland they call it, says Nozeman, the *little king*. W.

FOREIGN BIRDS

WHICH ARE RELATED TO THE TREE SPARROW.

THE bird called the *Wild Sparrow* (*Passereau Sauvage*) in Provence, appears to be merely a variety of the tree sparrow. Its song, says M. Guys, would seem never to end, and is quite different from that of the house-sparrow. He adds, that this bird is very shy, and conceals its head among the stones, leaving its body uncovered, and then fancies itself to be safe. It subsists in the fields upon grain, and some years it is very rare in Provence.

But besides this and other varieties of the same sort that inhabit our climates, and which we have mentioned after our nomenclators by the names of *Mountain Sparrow*, *Collared Sparrow*, *Foolish Sparrow*, there are others found in foreign climates.

I.

THE GREEN SPARROW*.

It is delineated fig. 2, No. 201, *Pl. Enl.* under the name of *Red-headed Cayenne Sparrow*. We shall term it the *Green Sparrow*, because its body is greenish. But though in point of colour it differs as much as possible from our tree sparrow, it is nearer related to this than to any other European bird.

* CHARACTER SPECIFICUS.

TANAGRA CAYANA. T. fulva, dorso viridi, pileo rufo, genis nigris.—*Lath. Ind. Orn.* i. p. 427. No. 25.

TANAGRA CAYANA.—*Gmel. Syst.* i. p. 892. •

TANAGRA CAYANENSIS VIRIDIS.—*Bris.* iii. p. 21. 12. t. 4. f. 3.

LE PASSEVERT.—*Buff. par Sonn.* xlvii. p. 168.

LE MOINEAU à TÊTE ROUSSE.—*Pl. Enl.* 201. f. 2. (*mas.*)

LE TANAGRA à TÊTE ROUSSE.—*Pl. Enl.* 290. f. 1. (*femina.*)

RUFUS-HEADED TANAGER.—*Lath. Syn.* iii. p. 231. 26.

HABITAT

in Cayana.

W.

II.

THE BLUE SPARROW *.

The same may be said of the *Blue Cayenne Sparrow* of fig. 2, No. 203; and as both these birds inhabit the same climate, we can hardly decide whether they are distinct species, or ought to be ranged in the same.

* CHARACTER SPECIFICUS.

TANAGRA CÆRULEA. T. tota cœrulea.—*Lath. Ind. Orn. i.*
p. 427. No. 27.

TANAGRA CÆRULEA.—*Gmel. Syst. i. p. 891.*

LE PASSE-BLEU.—*Buff. par Sonn. xlvii. p. 168.*

LE MOINEAU BLEU de CAYENNE.—*Pl. Enl. 203. f. 2.*

BLUE TANAGER.—*Lath. Syn. iii. p. 234. 28.*

HABITAT

in Cayana.

W.

III.

THE FOUDI*.

This bird is called in Madagascar, *Foudi Lehemené*. Brisson mentioned it first under the name of the *Madagascar Cardinal*. It is delineated fig. 2, No. 132, *Pl. Enl.* by the title of *Madagascar Sparrow*.

There are two birds, the *Cardinal of the Cape of Good Hope*, fig. 2, No. 6, and the *Sparrow of the Cape of Good Hope*, fig. 1, No. 134, which both appear to me to be varieties of the tree sparrow, the former being the male, and the latter the female; for the only difference is, that the under part of the body is black; but

* CHARACTER SPECIFICUS.

LOXIA MADAGASCARIENSIS. L. rubra, fascia oculari nigra, dorso nigricante-maculato.—*Lath. Ind. Orn.* i. p. 376. No. 16.

LOXIA MADAGASCARIENSIS.—*Gmel. Syst.* i. p. 847.

CARDINALIS MADAGASCARIENSIS.—*Bris.* iii. p. 112. 20. t. 6. f. 2.

LE FOUDIS.—*Buff. par Sonn.* xlvii. p. 171.

LE MOINEAU de MADAGASCAR.—*Pl. Enl.* 134. f. 2.

MADAGASCAR GROSBK.—*Lath. Syn.* iii. p. 119. 15.—*Id. Sup.* p. 150.

HABITAT

in India, Madagascar.

W.

in all other respects they are alike, and as we have reason to believe that they live in the same climate, we may conclude they belong to the same species.

IV.

THE CRESTED TREE SPARROW*.

It is like the tree sparrow in size and shape, though much different in point of colour. It is delineated fig. 1 and 2, No. 181, *Pl. Enl.* under the names of the *Cayenne and Carolina Sparrow*. Fig. 1 is probably the male, and fig. 2 the female of the same species.

* CHARACTER SPECIFICUS.

FRINGILLA CRISTATA. F. cristata, rubro-fusca, corpore subtus uropygio cristaque coccineis.—*Lath. Ind. Orn.* i. p. 434. No. 4.

FRINGILLA CRISTATA.—*Gmel. Syst.* i. p. 926.

LE FRIQUET HUPPE'.—*Buff. par Sonn.* xlvii. p. 175.

LE MOINEAU de CAYENNE.—*Pl. Enl.* 181. f. 1*

BLACK-FACED FINCH.—*Lath. Syn.* iii. p. 253.—*Id. Sup.* p. 164.

HABITAT

in Cayana.—6½ pollices longa.

W.

V.

THE
BEAUTIFUL-MARKED SPARROW*.

It is delineated fig. 1, No. 203, *Pl. Enl.* under the appellation of *Sparrow of the Coast of Africa*. It is certainly different from the tree sparrow, and all those which we have mentioned, and therefore required an appropriated name. That which we have formed denotes that it is beautiful, and finely spotted under the belly.

* CHARACTER SPECIFICUS.

FRINGILLA ELEGANS. F. supra viridis, collo cinereo, pectore flavo, capistro gula uropygio caudaque rubris, abdomine maculis lunatis albis. — *Lath. Ind. Orn.* i. p. 441. No. 22. pl. 105. f. 2.

FRINGILLA ELEGANS.—*Gmel. Syst.* i. p. 912.

LE BEAU MARQUET.—*Buff. Pl. Enl.* 203. f. 1.

BEAUTIFUL FINCH.—*Lath. Syn.* iii. p. 266. 19.

HABITAT

in Africa.—5 pollices longa.

W.

THE RING SPARROW *†.

THIS bird has, as well as the tree sparrow, been often confounded with the house sparrow, though it is of a different species. It is larger than either, its bill is stronger, and red rather than black, and it has no habit in common with the house sparrow. It dwells in the woods, and hence the name that it has received from most of the naturalists †. It nestles in hollow trees, lays four or five eggs, and hatches only once a-year. As soon as the young are able to accompany the parents, that is about the end of July, they associate in flocks. The

* CHARACTER SPECIFICUS.

FRINGILLA PETRONIA. F. grisea, superciliis albis, gula lutea, rectricibus lateralibus apice intus macula alba.—*Lath. Ind. Orn.* i. p. 435. No. 6.

FRINGILLA PETRONIA.—*Gmel. Syst.* i. p. 919.

PASSER TORQUATUS.—*Raii Syn.* p. 87.—*Will.* p. 183.

PETRONIA MARINA.—*Raii Syn.* p. 80. 2. 92. 10.—*Will.* 171.
—*Id. (Auct.)* p. 267.

PASSER SYLVESTRIS.—*Bris.* iii. p. 88. 6. t. 5. f. 1.

LA SOULIERE.—*Buff. Pl. Enl.* 225.—*Buff. par Sonn.* xlvii. p. 183. pl. 100. f. 1.

RING SPARROW.—*Id. Syn.* iii. p. 254. 4.—*Id. Sup.* p. 104.
—*Will. (Auct.)* p. 250.

HABITAT

in Europa, præsertim Germaniæ sylvis.

† In Italian, *Passara Alpestre*.

† *Passer Sylvestris*,



FIG. 1 THE RING-SISKIN. FIG. 2 THE GRAVELIN.

Ring Sparrows are therefore collected six weeks earlier than the tree sparrows, and form also more numerous bodies. They remain united till the season of love, when they separate with their females in pairs. Though these birds are invariably stationary in our climate, it is probable that they dread the severity of the arctic region, for Linnæus makes no mention of them in his enumeration of the natives of Sweden. They are birds of passage in Germany*, and do not arrive in flocks, but only one by one†; and what seems to confirm our conjecture, they are often found dead in the hollows of trees, in hard winters. They subsist not only on grain and seeds of all sorts, but also on flies and other insects. They are fond of the society of their equals, and when they discover abundance of food, they invite them to partake. As they are almost always in numerous bodies, they do vast injury to newly-sowed fields. They can scarcely be driven away or destroyed, for they partake of the caution of the house sparrow. They avoid snares, lime-twigs, and traps, but they can be caught in great numbers with nooses.

* This bird was hitherto scarcely, if at all, known in Germany; but of late years it has become very common.—*Note communicated by Lottinger.*

† Frisch.

FOREIGN BIRDS

RELATED TO THE RING SPARROW.

I.

THE LITTLE RING SPARROW*.

THIS bird is so much like the ring sparrow, that we might consider it as a variety only, if it were possible that it could migrate into the new continent. It is delineated fig. 2, No. 223, under the name of the *Canada Sparrow*. It is

* CHARACTER SPECIFICUS.

FRINGILLA CANADENSIS. F. castaneo et griseo-fusco varia, subtus cinerascens, macula ad basin rostri rufescente, fascia alarum duplici alba.—*Lath. Ind. Orn.* i. p. 434. No. 3.

FRINGILLA MONTICOLA.—*Gmel. Syst.* i. p. 912.

PASSER CANADENSIS.—*Bris.* iii. p. 102. 15.

LE MOINEAU de CANADA.—*Pl. Enl.* 223. f. 2.

LE SOULCIET.—*Buff. par Sonn.* xlvii. p. 186.

MOUNTAIN FINCH.—*Lath. Syn.* iii. p. 265. 16.

HABITAT

in Canada; autumno austrum versus migrans.—6½ pollices longa
W.

smaller than the ring sparrow, as all the American animals are inferior to those of the same species in the old world*.

* It is found in several of the North American countries, particularly in Canada. In the winter it goes to the southward. W.

II.

THE PAROARE*,

Is another beautiful bird, a native of South America. Marcgrave calls it by its Brazilian name, *tijé guacu paroara*, from which we have taken the term *Paroare*. Brisson has named it the *Dominican Cardinal*, because its head is red, and its body black and white. In the female, the fore-part of the head is not red, but yellow-orange, sprinkled with reddish points.

We shall also apply the name of *Crested Paroare* to a bird of the same continent, which appears to be only a variety, distinguished by a tuft or crest on its head. This beautiful bird is figured No. 103, *Pl. Enl.* and there termed the *Crested Dominican Cardinal of Louisiana*.

* CHARACTER SPECIFICUS.

LOXIA DOMINICANA. L. cinerea, subtus nivea, capite anteriore guttureque rubris, rectricibus nigris cinereo marginatis, extrema margine exteriori alba.—*Lath. Ind. Orn.* i. p. 378. No. 21. Var. β.

CARDINALIS DOMINICANUS.—*Bris.* iii. p. 116. 22. t. 6.

TIJÉ GUACU PAROARA. — *Rea. Syn.* p. 69. — *Will.* p. 188. t. 41 & 45.—*Id. (Angl.)* p. 256.

LE CARDINAL DOMINIQUEIN.—*Pl. Enl.* 55. 2.

LE PAROARE.—*Buff. par Sonn.* xlvii. p. 188. pl. 108. f. 2.

POPE GROSBREAK.—*Arct. Zool.* ii. No. 211.—*Lath. Syn.* iii. p. 124. 20. B.

HABITAT

in Brasilia.

W.



THE PAROARE.

III.

THE CRESCENT*.

This bird is delineated fig. 1, No. 230, *Pl. Enl.* and there named the *Sparrow of the Cape of Good Hope*, which had been given to it by Brisson. We shall term it the *Crescent*, because in its species and climate it is different from the others. In the distribution of its colours it is analogous to the ring sparrow, and has a white crescent which extends from the eye below the neck.—This character is alone sufficient to distinguish it.

* CHARACTER SPECIFICUS.

FRINGILLA ARCUATA. F. castanea, subtus alba, capite colloque inferiore nigris, torque tæniæque pone oculos albis.—*Lath. Ind. Orn.* i. p. 440. No. 21.

FRINGILLA ARCUATA.—*Gmel. Syst.* i. p. 912.

PASSER CAPITIS BONÆ SPEI.—*Bris.* iii. p. 104. 16. t. 5. f. 3.

LE MOINEAU du CAP DE BON ESPERANCE.—*Pl. Enl.* 230. f. 1.

LE CROISSANT.—*Ruff. par Sonn.* xlvii. p. 192.

CRESCENT FINCH.—*Lath. Syn.* iii. p. 206. 18.

HABITAT

ad Cap. B. Spei.—6 pollices longa,

W.

THE CANARY FINCH *.

If the nightingale be the songster of the grove, the Canary Finch is the musician of the chamber. The melody of the former is derived from Nature alone, that of the latter is directed and improved by our instructions. With a weaker voice, with less extent of modulation,

* CHARACTER SPECIFICUS.

FRINGILLA CANARIA. F. rostro corporeque albo-flavicante, remigibus rectricibusque virescentibus.—*Lath. Ind. Orn.* i. p. 454. No. 68.

FRINGILLA CANARIA.—*Gmel. Syst.* i. p. 913.

SERINUS CANARIUS.—*Bris.* iii. p. 184. 52.—*Raii Syn.* p. 91. 6.—*Will.* p. 192. t. 46.

LE SERIN des CANARIES.—*Buff. Pl. Enl.* 202. f. 1.—*Buff. par Sonn.* xlvii. p. 194.

CANARY FINCH.—*Will. (Angl.)* p. 262. t. 46.—*Lath. Syn.* iii. p. 293. 62.

HABITAT

in Canariis insulis ; in domibus ubique culta multum colore
varians. W.

with less variety of notes, the Canary Finch has a finer ear, greater facility of imitation *, and a more retentive memory ; and, as the characters of animals depend principally on the quality of their perceptions, this delicate bird, alive to every impression, becomes also more social, more gentle ; forms acquaintance, and even shews attachment †. Its caresses are amiable, its little pets are innocent, and its anger neither hurts nor offends. Its habits, too, approach nearer to our own ; it feeds on grain, like the other domestic birds ; it is more easily bred than the nightingale, which lives only on flesh and insects, and which requires its meals to be purposely prepared. Its education is attended also with greater success ; it readily lays aside the melody of its native airs to adopt the harmony of our voices and instruments ; it eagerly follows the notes, and improves and heightens their delicacy. The nightingale, proud of its

* The Canary learns to speak, and articulate many little names very distinctly By means of a flageolet it can acquire two or three airs, which it chaunts in their proper tone, always keeping due time, &c.—*Traité des Serins des Canaries, par Hervieux, 1713.* A Canary, which, when young, was placed very near my desk, got an odd sort of song ; it imitated the sound made by telling crowns.—*Note communicated by Hebert, receiver-general at Dijon.*

† It becomes so familiar and so fond of caressing, that a thousand and a thousand times it comes to kiss and bill its master, and never fails to answer his call.—*Traité des Serins par M. Hervieux.*

independent warble, seems desirous to preserve its purity; at least, he slights our music, and can hardly be brought to learn a few songs. The Canary Finch prattles or whistles; but the nightingale despises what he deems the perversion of his talents, and perpetually recurs to the rich beauties of Nature. His ever-varied song can never be altered by man; that of the Canary Finch is more pliant, and can be modelled by our taste. The one, therefore, contributes more than the other to the comforts of society; the Canary Finch sings at all times, recreates our spirits in the gloomiest weather, and even adds to our happiness; it amuses all young people, and is the delight of the recluse; it relieves the languors of the cloister, and infuses cheerfulness into innocent and captive minds; and its little loves, which are manifest when it breeds, have a thousand and a thousand times awakened the tenderness of feeling hearts. It is as useful, as the vulture is pernicious.

To the happy climate of the Hesperides this charming bird owes its birth, or, at least, its perfection: for, in Italy*, there is a species smaller

* *Citrinilla*, Gesner; *Vercellino*, Olina.—“Sparrow variegated above with yellowish green; below dilute greenish; the wing and tail quills blackish, the outer margin greenish.” The Italian *Scrin*, BRISSON. It is the *Fringilla Citrinella* of Linnæus, and the *Citril Finch* of Latham. Its specific character:—“It is somewhat greenish, its back spotted with dusky, its legs flesh-coloured.”

than that of the Canaries, and, in Provence, another almost as large*; but both these are more rustic, and may be regarded as the wild branches of a polished stem. All the three intermix in the state of captivity; but in the range of nature, each propagates in its peculiar climate. They are therefore permanent varieties, and ought to be distinguished by separate names. The largest was called *Cinit*, or *Cini*, in the time of Belon, (above two centuries ago); and in Provence it is termed at present *Cini*, or *Cigni*, and the Italian kind, *Venturon*. I shall distinguish these three varieties by the epithets *Canary*, *Cini*, and *Venturon*.

The *Venturon*, or the Italian Bird, is found not only through the whole of Italy, but in Greece†,

* *Serinus*, *Serin*, *Cenicle*, *Ceresin*, *Cinit*, *Cedrin*.—¹ Sparrow varying above with greenish yellow, below dilute greenish, the sides marked with dusky longitudinal spots, a greenish yellow stripe on the wings; the quills of the wings and of the tail dusky above, the outer margins greyish-green, the tips whitish." The *Serin*, BRISSON. It is the *Fringilla Serinus* of Linnæus, and the *Serin Finch* of Latham. Its specific character:—"It is somewhat greenish, its lower mandible whitish, its back and sides spotted with dusky; a yellow spot on the wings."

† The ancient Greeks called this bird Τραυνίς; and the Greeks, according to Belon, Σπινδύρα. The Turkish name is *Sure*: in some parts of Italy it is termed *Luguarinera*, *Beagana*, *Raverin*; in the neighbourhood of Rome, *Verzellino*; in Bologna, *Vidarino*; at Naples, *Lequilla*; at Genoa, *Scarino*;

Turkey, Austria, Provence, Languedoc, Catalonia, and probably in all climates of that temperature. Some years, however, it is very rare in the southern provinces of France, and particularly at Marseilles. Its song is pleasant and varied. The female is inferior to the male both in the charms of its notes and in the beauty of its plumage. The shape, the colour, the voice, and the food of the venturon and of the Canary are nearly the same; and the only difference is, that the Italian bird is sensibly smaller, and its warble neither so clear nor so melodious.

The *Cini*, or green bird of Provence, is larger than the venturon, and its tones are much fuller. It is distinguished by the beauty of its colours, the loudness of its song, and the variety of its notes. The female, which is rather larger than the male, and has fewer yellow feathers, chaunts not like its mate, and answers only in monosyllables. It feeds on the smallest seeds it can find in the field; lives long in a cage, seems fond of lodging with a goldfinch, whose accents it seems attentively to hear, and adopt, to vary its own warble. It occurs not only in Provence, but also in Dauphiné, in the Lyonnais*, in Bugey, in Geneva, in Switzerland, in

in the Trentin, *Citrinella*; in Germany, *Citrynle* or *Zitrynle*; at Vienna, *Citril*.

* I have seen in the country in Bugey, and near Lyons, birds very like the Canary Finches, and they were called

Germany, in Italy, and in Spain*. It is the same bird that is called in Burgundy the *Serin*; it builds among the osiers planted along the sides of the rivers, and its nest is lined with hair, and cased with moss. This bird, which is pretty common in the vicinity of Marseilles, and in the south of France as high as Burgundy, is unfrequent in the northern provinces. Lottinger says it is only migratory in Lorraine.

The prevailing colour of the venturon, as well as that of the cini, is a green yellow on the upper part of the body, and a yellow green on the belly; but the cini, larger than the venturon, is distinguished by the brown colour which appears in longitudinal spots on the sides of the

Signis or *Cignis*. I have also seen them at Geneva, in cages, and their song did not seem to me very pleasant.—I think they are called at Paris, “the Swiss Serins.”—*Note of M. Ilbert.*

“The German Serins are much commended; they excel the Canary Finches by their beauty and their song. They are not inclined to grow fat; the force and extent of their warble prevent, it is said, that effect. They are raised in cages or in chambers fitted up for them, and having an easternly aspect; they hatch thrice a-year, from the month of April to August.”—*Le Parfait Oisieur.*

This is not altogether accurate; for the song of these German Serins, which are the same with those of Switzerland and Provence, though full and shrill, is far from having the sweetness and mellowness of the Canary Birds.

* In Catalonia, it is called *Canari de Montanya*; in Italy, *Serin*, or *Scarzerin*; in Germany, *Fædcul*; in the neighbourhood of Vienna, *Hirn-gryll*; in Switzerland, *Schuederle*.

body, and in waves below *; whereas in our climate, the common colour of the Canary is

* I shall here insert an excellent description of the Cini, which M. Hebert sent to me. "This bird is somewhat smaller than the Canary Finch, which it much resembles. It has precisely the same plumage with a kind of Canary called the *Grey Canary*, which is perhaps the original bird, and the varieties are owing to domestication.

"The fore part of the head, the orbits of the eyes, the under part of the head, a sort of collar, the breast and belly, as far as the toes, are of a jonquil colour, with a tinge of green. The sides of the head, and the higher part of the wings, are mixed with green, jonquil, and black. The back, and the rest of the wings, are dashed with green, grey, and black. The rump is jonquil. The breast, though of a single colour, is waved. The spots scattered on the plumage of the Cini are not distinctly marked, but run into each other; those on the head are much finer, and like points; on the two sides of the breast, and under the belly parallel to the wings, are spots or streaks of black.

"The tail is forked, consisting of twelve quills; the wings are of the same colour with the back; the ends of the coverts at the origin of the great quills are slightly edged with a sort of dull yellow; the great quills and the tail are similar, and of a brown verging to black, with a slight edging of grey; the tail is shorter than that of the Canary bird."

"In general this bird is jonquil below, and variegated on the back with different colours, in which the green predominates, though we cannot assert that this is the ground colour; on the back not a single feather but is variegated with several colours.

"The bill is pretty much like that of the Canary, but rather shorter and smaller; the upper mandible is level with the crown of the head, has little concavity, broader at its base, and scalloped near its origin; the lower mandible is more concave, placed diagonally under the upper, into which it is encased.

uniform, and of a citron-yellow, on all the body and even on the belly: it is only the tips of the feathers, however, that are tinged with that delicate hue, the rest of them being entirely white. The female is of a paler yellow than the male; but this citron-colour verging more or less on white, which the Canary assumes in our climate, is not the tint of its native climate, for it varies according to the different temperatures. "I have observed," says one of our most intelligent naturalists, "that the Canary Finch, which becomes entirely white in France, is in Teneriffe of almost as deep a grey as the linnet; this change of colour is owing probably to the coldness of our climate." The colour can be varied also by the difference of food, by confinement, and above all by the mixture of breeds. In the beginning of this century the curious in birds reckoned already twenty-nine varieties of Canaries, and all of them were distinctly described *. The primitive stock from which these

"This Cini was only two inches and seven lines from the top of the head to the origin of the tail, which was only one inch and ten lines; the wings extend to the third of the tail; the legs are very slender; the tarsus six lines long, and the toes nearly as much; the nails are not regularly hooked."

* *I shall here enumerate them all, beginning with those which are most common :—*

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| 1. The Common Grey Canary. | 4. The Common Flaxen Canary. |
| 2. The Grey Canary, with down and white feet. <i>Variegated breed.</i> | 5. The Flaxen Canary, with red eyes. |
| 3. The White-tailed Canary. <i>Variegated breed.</i> | 6. The Golden Flaxen Canary. |
| | 7. The Flaxen Canary, with down: <i>Variegated breed.</i> |

were descended is the Common Grey Canary. All those which have other uniform colours derive them from the difference of climates. Those which have red eyes are more or less inclined to a pure white plumage; and the variegated are rather artificial than natural*.

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|---|---|
| 8. The White-tailed Flaxen Canary.
<i>Variegated breed.</i> | 20. The White Canary, with red eyes. |
| 9. The Common Yellow Canary. | 21. The Common Variegated Canary. |
| 10. The Yellow Canary, with down.
<i>Variegated breed.</i> | 22. The Variegated Canary, with
red eyes. |
| 11. The White-tailed Yellow Canary.
<i>Variegated breed.</i> | 23. The Flaxen Variegated Canary. |
| 12. The Common Agate Canary. | 24. The Flaxen Variegated Canary,
with red eyes. |
| 13. The Agate Canary, with red eyes. | 25. The Black Variegated Canary. |
| 14. The White-tailed Agate Canary.
<i>Variegated breed.</i> | 26. The Jonquil-black Variegated
Canary, with red eyes. |
| 15. The Agate Canary, with down.
<i>Variegated breed.</i> | 27. The Jonquil-black Variegated
Canary, of a regular plumage. |
| 16. The Common Pink Canary. | 28. The Full Canary (that is, en-
tirely of a jonquil-yellow),
which is the rarest. |
| 17. The Pink Canary, with red eyes. | 29. The Crest Canary (or rather the
Crowned), which is one of
the most beautiful. |
| 18. The Golden Pink Canary. | |
| 19. The Pink Canary, with down.
<i>Variegated breed.</i> | |

Traité des Serins de Canaries, par Herveux, 1713.

* "The shades and arrangement of the colours of the variegated Canaries differ exceedingly; some are black on the head; others not; some are spotted irregularly, and others with great regularity. The differences of colour are commonly perceived only on the upper part of the bird; they consist of two large black spots on each wing, the one before and the other behind, in a large crescent of the same colour placed on the back, pointing its concavity towards the head, and joining by its horns to the two anterior black spots of the wings. Lastly, the tail is surrounded behind by an half-collar of grey, which seems to be a compound colour resulting from the intimate mixture of black and yellow. The tail and its coverts are almost white."—*Description des Cou d'un Canari Panaché, observé avec M. de Montbeillard.*

But, besides these primary varieties, which seem to have been introduced by the change of climate, and some secondary ones that have since appeared, there are others more apparent, and which result from the union of the Canary with the verivuron, and with the cini; for not only do these three birds breed together, but the young hybrids are capable of procreation. The same may be said in regard to the fruits of the commerce of the Canary with the siskin, with the goldfinch, with the linnet, with the yellow-hammer, with the chaffinch, and even, it is said, with the Sparrow *. These birds, though very different from each other, and apparently discriminated widely from the Canaries, can by proper care and attention be made to pair with them. The Canary must be removed from those of its own species; and the experiment seems to succeed better when performed with the female than with the male. The siskin and goldfinch are the only birds with which, it is well ascertained, that the male Canary can propagate. On this subject one of my friends thus writes me; a person of as much experience as voracity †.

“ For thirty years past I have raised many of these small birds, and have paid particular atten-

* D'Arnault assured Salerne that he saw at Orleans a grey hen Canary which had escaped from the volery, couple with a sparrow, and make her hatch in a *sparrow-can*, which thrived.—*Amusemens Innocens, ou le Parfait Oiselleur*, 1774.

† Father Bougot.

tion to breeding them; I can therefore from long observation assert the following facts. When we wish to pair Canaries with goldfinches, we must take the goldfinches at ten or twelve days old, and put them in the nest with Canaries of the same age; we must raise them together in the same volery, and accustom them to the same food. It is usual to lodge the male goldfinches with the female Canaries, and they associate much more readily than if the female goldfinches were joined with the male Canaries.

"We may observe, however, that the union is more tardy, because the goldfinch is later in pairing than the Canary; on the contrary, if the female goldfinch be placed beside the male Canary they sooner couple*. To succeed we must never admit the male Canary into the voleries where there are female Canaries, for he would then prefer them to goldfinches†.

"With regard to the union of the male Canary with the female siskin, I am certain that it succeeds well. I have kept for nine years in my volery a female siskin, which never failed to make three hatches annually for the first five years, though the number was reduced to two in the four following years. I have other sis-

* This proves (as we shall afterwards observe) that the female is not so much stimulated to love by nature, as roused by the solicitation of the male.

† Gesner says, that a Swiss bird catcher trying to pair a cock Canary with a hen-Sarzerine (Cini), had eggs, but that these were addled.

kins which have bred with the Canaries, without being raised or kept separately. We need only leave the male or female siskin in the chamber with a good number of Canaries, and we shall perceive them pair with the Canaries, at the same time that these pair with each other; whereas, to succeed with the goldfinches, they must be shut up in a cage with the Canary, and every bird of the same species must be excluded. The siskin lives as long as the Canary, and eats the same food with much less reluctance than the goldfinch.

“ I have also put linnets with Canaries; but there is seldom success, unless we lodge the male linnet with the female Canary; for the hen linnet makes no nest, but drops her eggs in the cage, and these are generally addle. I have made the experiment with them, having placed them under female Canaries, and frequently found that they did not hatch.

“ It is very difficult to pair chaffinches and yellow-hammers with Canaries. I have kept for three years a female yellow-hammer with a male Canary, and it has laid only addle eggs. This has also been the case with the female chaffinch; but when the female Canary is covered by the male chaffinch and yellow-hammer she has prolific eggs.”

From these facts, and some others which I have collected, it appears that the siskin is the only bird of which the male and female propagate equally with those of the male or female

Canaries. The female Canary also breeds readily with the goldfinch; not so easily with the cock linnet; and even produces, though with more difficulty, under the male chaffinches, yellow-hammers, and sparrows; whereas the male Canaries cannot impregnate the females of these last. Nature is therefore more uniform and permanent in the male than in the female; in the former, the characters are deeply imprinted; in the latter, the qualities are modified by the influence of external causes. In the few experiments which I have made on the union of some contiguous species of quadrupeds, I observed that the ewe easily bred under the he-goat; but that the ram could not propagate upon the she-goat. I have been told of an instance in which a stag covered a cow; but the bull has been known to copulate with the hind. The mare breeds more readily with the jack-ass, than the she-ass with the stallion. In general, mules partake more of the characters of the female than of the male, whose features are more strongly marked.—These facts correspond with those we have mentioned with regard to the cross-breed of birds. It is evident that the female Canary is much more related than the male to the species of the yellow-hammer, of the linnet, of the chaffinch, and of the sparrow; since it breeds with all these, while the male will not. I use the term *will*, for perhaps it is only from a want of resolution that the female yields to the solicitations of

those of a different species / however, an examination of the products of this intermixture affords conclusions that agree with all that I have said of the generation and developement of animals ; and as the subject is important, I shall here state the principal facts.

The first variety which seems to constitute two distinct families in the species, consists of the variegated Canaries, and those whose plumage is uniform. The white sort, or the yellow-citron, are never variegated ; only when the latter are four or five years old, the tips of the wings and of the tail become white. The grey kind are not of an uniform colour ; some feathers are affected by different shades, and some individuals are of a lighter or of a darker tinge. The agate is spread uniformly, though it varies in the intensity. The pink coloured are more similar, the tint being uniform, not only in different individuals, but in different parts of the same individual. In those which consist of several colours, the yellow jonquil sort are variegated with blackish, and are commonly black on the head. In some Canaries, the plumage is tinged with all the simple colours which we have mentioned ; but the yellow jonquil are the most variegated with black.

When Canaries are paired of an uniform colour, that of their young is also uniform. If both parents are grey, for instance, their progeny is also commonly grey ; and this is the case with the pink, with the white, with the

yellow, and with the agate. If the parents be of different colours, the fruits of their commerce will have a richer plumage; and as the combinations that can take place are numerous, an immense variety of tints may be produced. But when the Canaries of an uniform colour are crossed with those which are variegated, the changes are prodigiously multiplied, and there is scarcely any limit to the sportive modifications. Nay, it often happens that parents of an uniform colour have beautiful variegated offspring, derived from the mixture of shades in themselves or their progenitors*.

With respect to the intercourse of the Canary with birds of other species, I shall here state the observations which I have collected. Of all the Canaries, the Cini or Green Canary has the strongest voice, and appears to be the most vigorous, and the most ardent in propagation; it is sufficient for three female Canaries, and while they are sitting in the nests, it supplies them and their young with food. The siskin and the goldfinch are neither so powerful, nor so assiduous, and a single female Canary satisfies their appetite.

* To have beautiful birds, we must pair the flaxen variegated male with a white-tailed yellow female; or at least a variegated male with a white-tailed flaxen female, or any other female that is white-tailed, except only the grey. And when we want to obtain a fine jonquil, we should set a black variegated male with a white-tailed yellow female. — *Amusemens Innocens.*

The cross-breed of the cisti, of the siskin, and of the goldfinch, with the hen Canary, are stronger than the Canaries, sing longer, and their notes are fuller and more sonorous; but they are slower in receiving instruction: for the most part, they whistle imperfectly, and seldom one can be found that can repeat a single air complete.

When we wish to have a breed of the goldfinch with the hen Canary, the former should be two years old, and the latter one, for the Canary arrives sooner at maturity. It will be better if both be reared together, though that precaution is not absolutely necessary; and the Author of the "Treatise on Canaries" is mistaken in asserting, that the hen must never have had commerce with a male of her own species, and that this would prevent her from receiving those of a different kind. The following fact is directly contrary to this opinion: "I happened," says father Bougot, "to put twelve Canaries together, four males and eight females. Bad chickweed killed three of these males, and all the females lost their first hatch. In the stead of these cock Canaries, I thought of substituting three male goldfinches which I caught, and put them into the volery in the beginning of May. I had, towards the end of July, two nests of young, which thrived as well as possible; and in the following year, I had three hatches of each cock goldfinch with the female Canaries. These commonly

do not breed with the goldfinch, except from the age of one to four; while they continue prolific with their own males till eight or nine; and it is only the variegated female that breeds with the goldfinch after its fourth year. We must never put the goldfinch into a volery, for it demolishes the nests, and breaks the eggs of the other birds." It appears then that the hen Canaries, though accustomed to the commerce of their own species, listen to the invitation of the male goldfinches, and submit without reluctance to their embraces. The union is even as productive as with their proper mates, since they have three hatches a-year with the goldfinch. The case is different in the intercourse of the cock linnet with the Canary, there being commonly but one hatch, and very seldom two in the year.

The progeny of the Canaries with the siskins, with the goldfinches, &c. are prolific, and can breed not only with both the species from which they sprung, but likewise with each other; and thus may perpetuate an endless variety*. We must own, however, that the fruits of the intermixture in these hybrids are far from being so

* Sprengel has made many observations with regard to the cross-breeds of the Canaries with other species, and particularly with the goldfinches: he has shewn that the progeny continued to propagate with each other, and with the parent races. The proof which he has adduced is complete, though before him these hybrids were considered as sterile.—*Amusemens Innocens*.

certain or so numerous as in the pure species ; they generally have only one hatch a-year, seldom two, their eggs are often addle, and the success depends on many minute circumstances, which it would be impossible to observe, and still less to describe with precision. It is said, that in these there are always more males than females. " A hen Canary (says Father Bougot) and a goldfinch have, in the same year at three different times, laid me nineteen eggs, which all hatched, and of the young were only three females." It would be proper to ascertain this fact by repeated observations. In the pure breeds of several birds, as in the partridges, it has also been remarked that the males exceed the females. The same remark applies to the human race : in our climates, seventeen boys are born for sixteen girls. We know not the precise proportion between the male and female partridges, but that the former are more numerous than the latter we are certain, because in the pairing season, there are always cock birds that want mates. It is likely, however, that sixteen to three, as in the cross-breed of the Canary and goldfinch, is a greater inequality than ever takes place in a pure breed. I have been told, that the she-mules, got between the ass and the mare, exceed in number the he-mules ; but I could never obtain accurate information on that subject. Our business then is to determine by observation the number of males and of females in the pure race of the Canary, and afterwards

to examine if that of the males be still greater in the cross-breed of the goldfinch and hen Canary. What disposes me to entertain this opinion is, that the character of the male is in general more deeply impressed on the progeny than that of the female. These hybrids, which are stronger than the Canaries, and have a louder voice, are also longer lived. But there is an observation which applies alike to all, that the period of their lives is abridged by their ardour in propagation. A cock Canary raised by itself, and without intercourse with the female, lives generally thirteen or fourteen years; and the cross-breed of the goldfinch will reach its eighteenth or nineteenth year. The cross-breed of the siskin, if kept apart from the females, live fifteen or sixteen years. Whereas the cock Canary, which has one or several females, seldom lives longer than ten or eleven years; the cross-breed of the siskin eleven or twelve, and that of the goldfinch fourteen or fifteen. It is also necessary to part them from the females after the time of hatching; that is, from the month of August to that of March; else the heat of their passion would waste them, and abridge their lives by two or three years.

To these remarks, which are all interesting, we may subjoin a general and more important observation, which may throw some light on the generation of animals, and the development of their different parts. It has been constantly noticed in the copulation of the canaries;

both with those of their own species and with those of other races, that the offspring resembled the father in the head, the tail, and the legs, and the mother in the rest of the body. The same has been observed in quadrupeds. The mule, got between the jack-ass and the mare, has the thick body of the former, and the ears, the tail, and the thin legs of the latter. It appears therefore that, in the mixture of the two seminal liquors, however intimate we suppose it to be, the organic molecules furnished by the female occupy the centre of that living sphere which increases in all dimensions, and that the molecules injected by the male surround and inclose these; so that the extremities of the body proceed more immediately from the father than from the mother. The skin, the hair, the colours, which may be considered as the exterior of the body, retain most of the paternal impressions. In the cross-breed which I obtained from the copulation of the he-goat with the ewe, they all had, instead of a soft fleece, the shaggy coat of the male. In the human species, we may generally perceive, that the son resembles the father more than the mother, in his legs, his feet, and his hands; in his writing, in the quantity and colour of his hair, in his complexion, and in the bulk of his head: and the mulattoes born of a negress lose more of the dark tinge than those of a white woman. All these facts seem to confirm our general idea, that the female molecules occupy the centre of

the *fetus*, and, though brought into the closest union, are more abundant near the surface.

In general, the beauty of the species can never be improved or even preserved, without crossing the breed: and the elegance of form, the strength and vigour of the body, depend almost solely on the proportion of the limbs. Accordingly, it is the males alone, which in man and in the animals ennoble the race. Large, generous males, covered by sorry little horses, have always ill-made colts; but a fine stallion will get a beautiful progeny from even the ugliest mares, and the more dissimilar are the kinds of the parents, the handsomer will be the offspring. The same may be said of sheep: the breed is always improved by strange rams, while the ordinary small sort can never get good lambs from the most excellent ewes. I could enlarge upon this important subject, but I should make too long a digression. Yet, to detail all the facts respecting the intermixture of animals, would be the most real service that can be rendered to Natural History. As many people employ or amuse themselves in breeding Canaries, which requires little time, numerous experiments might be made by crossing them, and continuing to mix the fruits of the embrace. I am confident that, by combining these observations with those upon the quadrupeds and upon man, we might be able to estimate the precise influence of the male in generation, compared with that of the female; and consequently, from the ge-

neral relations, to pronounce whether such a male would suit such a female, &c.

But in the quadrupeds, as well as in man and in the small birds, the difference of the moral qualities often disturbs the correspondence of the physical properties. If any thing could prove that the character of the individual is an original impression of nature which education can never alter, it is an instance in the *Canaries*. "They almost always," says *Hiervieux*, "differ from each other in their tempers; some males are always sad, and, as it were, absorbed in reveries, generally bloated, and sing but seldom in a mournful tone . . . require an immense time to learn, are perfectly acquainted with what they are taught, and easily forget it . . . These *Canaries* are often so slovenly, that their feet and tail are always dirty; they never gain the affection of their females, which they soothe not with their song, while engaged in hatching; and the young are little better than their fathers . . . There are other *Canaries*, which are so wicked, that they kill the female; the only way to succeed is, to give them two females, which will unite in their common defence; and after subduing their mate by force, they will retain the dominion by love* . Others

* "Sometimes the pravity of their disposition is in a certain measure compensated by other qualities; such, for instance, as their melodious song, their beautiful plumage, and their familiar turn. If you would wish to make them breed, you must give them two strong females one year older than them-

are of a disposition so barbarous, that they break the eggs and eat them; or if these have escaped their ferocity, they lay hold of the callow brood by the bill, drag them into the cage, and murder them *. Some are so wild and in-

selves; and the females should be accustomed for several months previous to live in the same cage, that they may have no jealousy to each other. And a month before the love-season, they must be both set together in the breeding-cage; and at the proper time the male should be let in among them. He will be very quarrelsome the first three days; but the females, uniting against him, will certainly in the end gain the ascendant, and he will be obliged to submit, and at last become attached to them. These kind of forced marriages often succeed better than others from which more might be expected. To preserve the hatch, the first egg should be removed, and an ivory one put in its place; the same must be done the following days, always taking them away as fast as they are laid, lest the male should break them; and after the last egg is dropped, the male must be shut in a separate cage, and the female permitted to hatch undisturbed. After the young are ready to be taken from the mother, the prisoner may be returned to his female."—*Traité des Serins des Canaries*.

* "There are males of a weak habit, indifferent about the females, and always sick after nestling; these must not be paired, for I observe that the offspring resemble the father. There are others so libidinous, that they drive the female from her nest, and would not allow her to sit; these are of a hardy constitution, have a superior song, a finer plumage, and are tamer. Others break the eggs, and kill the young, the more to enjoy the female. Others shew a predilection for an individual, and will, out of twenty, select their favourite, to which they will pay particular attention. Those have a good temper, and will communicate it to their progeny. Others discover fondness for no female, and remain inactive and un-

dependent, that they will not suffer themselves to be touched or caressed, and can neither be governed nor treated like the rest: they spurn at the least interference, and it is only when left to the impulse of their humours that they will couple and breed. Others are excessively indolent; the grey for instance scarcely ever take the pains to build a nest, but it must be provided for them, &c. All these characters are, we see, very different from each other, and from those of our favourite Canaries, which are ever joyous and ever chanting; are so tame and so lovely; are excellent husbands, and affectionate fathers; are of so mild a temper, and of so happy a disposition, that they receive every generous impression, and glow with each exalted feeling. They continually amuse the female by their song, they sooth the languor of her occupation, they entreat her to take relief in hatching, and, in her place, they sit several hours every day; they also feed the young;

productive. The same difference of character and temperament are to be found in the females. The jonquil females are most gentle; the agate sort are capricious, and often desert their young to join the male; the variegated females are assiduous on their eggs and affectionate to their young; but the variegated males are the most ardent of all the Canaries, and must have two or three females, else they will drive them from the nest and break the eggs. Those which are entirely jonquil have nearly the same fire of temper, and require two or three females. The agate males are the feeblest, and the females of that kind often expire upon their eggs."—*Note communicated by Father BOUGOT.*

and lastly, receive whatever instructions are given. From these alone we are to judge of the species, and I mention the others only, to show that, even in animals, the temper is derived from nature, and not formed by education.

Moreover, the apparently wicked disposition, which drives them to break their eggs and kill their young, proceeds often from the fire of their amorous passions. To enjoy the female oftener, and riot in the fulness of pleasure, they plunder the nest, and destroy the dearest objects of their affection. The best way to breed from these birds, is to separate them, and put them in the cage; it will be much better to give them a chamber having a sunny aspect, and facing the east in winter. For in the cage they will break the eggs to repeat their embrace; but when they are lodged in an apartment where there are more females than males, they will pay their addresses to another, and allow the first to hatch undisturbed. Besides, the males, from jealousy, will not suffer disorders to be committed; and when one is prompted by ardour to tease his female and break her eggs, they give him a sound beating, sufficient to mortify his concupiscence.

The materials given to build their nest, are the scrapings of fine linen rags, cows and stags hair, useless for other purposes, moss, and slender dry stalks of hay. The goldfinches and siskins, when lodged with the hen Canaries, to obtain a cross-breed, make use of the moss and

hay, but the Canaries prefer the hair and lint ; but these must be well divided, lest the fibres, sticking to their feet, should occasion the eggs to be broken.

To feed them, a crib is placed in the chamber, which is pierced all round with holes that admit the head ; and into it a portion of this mixture is put—three pints of rape-seed, two of oats, two of millet, and lastly, a pint of hemp-seed, and the crib is replenished every twelve or thirteen days, taking care that the grains be well cleaned and winnowed. This food is proper when they are only sitting ; but the day before the young are excluded from the shell, the parents ought to have a dry cake baked without salt, and after eating it, they should have hard boiled eggs ; one being sufficient for two males and four females, and two for four males and eight females, and so on in proportion. They ought to have no sallad or greens while rearing the offspring, for this would weaken much the young. But to vary somewhat their diet, they should every three days be presented on a plate with a bit of white bread soaked in water, and squeezed in the hand ; this being not so rich as the cake, and preventing them from growing too fat while breeding. It would also be proper to give them a few Canary seeds *, but only once in two days, lest they be

* *Alpis* in French, the Canary-grass being termed *Alpiste*. It is the *Phalaris Canariensis* of Linnæus. It is a native of

heated too much. Sugar biscuit commonly produces that effect, and is attended with another still worse, that the hens fed on it lay eggs that are addle, or too small and tender. When the eggs are small, the rape-seed should be boiled every day to blunt its acrimony. "Long experience," says Father Bougot, "has informed us, that this sort of food agrees best, whatever the authors, who have written on Canaries, may assert."

After the hatch, the Canaries ought to be purged with plantain and lettuce-seeds; but care must be taken to remove the young birds, which would be greatly weakened by this regimen, and the parents must not be confined to it longer than two days. When you want to feed them with the stick, you ought not, as most bird-catchers advise, leave them with the mother till the eleventh or twelfth day; you ought to remove them with their nest as early as the eighth day. The food for the young Canaries ought to be prepared before hand; it is a paste composed of boiled rape-seed, yolks of eggs and crumbs of cake mixed together, and beaten up with a little water. It ought to be given to them every two hours, and rammed into their bill. It must not be too liquid, lest it turn sour, and it must be made fresh every day till the young can eat without assistance.

the Canary islands, whence it springs spontaneously in the corn-fields; but is now cultivated in small quantities in many parts of Europe.

The produce of these captive birds is not so regular, but appears to be more numerous than it probably would be in the state of liberty. Some females have four or five hatches annually, and lay four, five, six, or even seven eggs each time; and generally they have three hatches, and the moulting hinders them from another*. Some however sit even during moulting, if they happen to be laying before that season. The birds of the same hatch do not all moult at the same time. The weakest first drop their feathers, and the strongest more than a month afterwards. In Jonquil Canaries this change of plumage is tedious, and commonly more dangerous than in the other kinds. The female jonquils have only three hatches, each of three eggs; the flaxen-coloured Canaries are too delicate, and their brood seldom thrives. The pink show a reluctance to pair with each other; in a large volery, the male but rarely couples with

* "There are females which never lay at all, and are called *brehaignes* (barren); others lay only once or twice in the whole year, and even repose two or three days between the first and second egg. Others have only three hatches, which are regular, consisting of three eggs laid without interruption. A fourth sort, called the *common*, because the most numerous, may have four hatches of four or five eggs, but not always uniform. Others are still better layers, having five hatches, and still more if allowed; and in each of these are six or seven eggs. When this kind feed well, they are excellent, and we cannot be too careful of them, for they are worth half a dozen of the ordinary Canaries."—*Traité des Strins de Canaries*.

the female of his own colour, and to form the union, they must be confined together in a cage. The white sort are commonly valuable in every respect; they lay and breed as well, or rather better than the others, and the variegated white are the hardiest of all.

Whatever differences there may be in the dispositions and prolific powers of these birds, the period of incubation is the same; all of them sit thirteen days; and when the exclusion of the young is a day earlier or later, it is owing to some particular circumstance. Cold retards the process, and heat forwards it; accordingly the first hatch, which is in April, requires thirteen days and a half, or even fourteen days, if the weather is chilly; but the third, which happens during the heats of July and August, is effected in twelve days and a half, or even twelve days. It would be proper to separate all the good eggs from the bad; and, to do this with certainty, we ought to wait to the eighth or ninth day, and take each gently by the two ends for fear of breaking it, and examine it in a strong light, or by a candle, and reject all that are addle, which if left would only fatigue the hen. By this trial we may often reduce three hatches to two; and in that case the third female may be liberated, and permitted to begin a second nest*.

* When the eggs of one female are set under another, they must be all sound. If addle or tainted eggs be given the variegated females, they will throw them out of the nest; and if the nest is too deep to admit their being tumbled out, they peck

A plan strongly recommended by bird-fanciers is, to remove the eggs as they are dropt, and to substitute in their stead eggs of ivory ; so that after the laying is over, the real eggs are restored, and all hatch at the same time. Commonly the egg is dropt at six or seven o'clock in the morning, and it is said that if it be a single hour later the bird is sick ; and, as the laying proceeds thus regularly, it is easy to remove the eggs as fast as they are excluded *. But this precaution is more suited to the convenience of man than consonant to the train of nature. When five or six young are hatched at once, they exhaust the vigour of the mother, and rather damp her spirits ; but if they appear successively, they repeatedly renew her pleasure, and inspire new courage to discharge her duty. Intelligent persons who have had experience in breeding these birds assure me, that they always succeed best when they do not employ this artificial expedient.

We may assert that, in general, all the nice precautions and the refined manœuvres recom-

them till broken, which often spoils the nest, and frustrates the whole hatch. Females of other colours cover wind eggs when placed under them.—*Note communicated by Father BOUGOR.*

* The laying is always at the same hour, if the female is healthy ; however, the last egg must be excepted, which is commonly several hours later, and often a day. This last egg is always smaller than the rest ; and I am told that it always gives a cock-bird. It would be curious to ascertain this singular fact.

mended by writers for training the Canaries, are pernicious rather than useful; and that in every respect we ought as much as possible to copy Nature: In their native country they haunt the sides of small rivulets, or wet gulleys*; we ought therefore to give them plenty of water, both for drinking and bathing. As they belong to an exceedingly mild climate, they must be sheltered from the rigours of winter. It appears indeed that being long naturalized in France, they can bear the cold of that country; for they may be kept in a chamber without a fire, and even without a glass window, a wire-grate to prevent their escape being sufficient; several dealers in birds have informed me that they lost fewer in this way than when the rooms were heated by a fire. The same may be said of their food, which is probably the more suited to them the simpler it is†. A circumstance that

* The Canary Finches imported into England are bred in the *barancos*, or gulleys formed by the torrents from the mountains.—*Hist. Gén. des Voyages*.

† I have often observed from my own experience, and from that of others who adhered scrupulously to all the minute directions given by authors, that extreme care and attention often killed their birds. A regular diet of rape-seed and millet, water every day in winter, and once or twice a-day in summer; groundsel, when it is to be had, in the month of May; chickweed in the time of moulting, and, instead of sugar, bruised oats and Turkey wheat, and above all great cleanliness, are all that I would recommend.—*Small Tract on the Breeding of Canaries, communicated by M. Batteau, Advocate at Dijon*.

N. B. I must here correct a small error. All the bird-

requires the most attention is, not to hasten their first hatch; it is common to allow them to couple about the twentieth or twenty-fifth of March, but it would be better to wait till the twelfth or fifteenth of April; for if the season be cold, they are apt to contract a disgust to each other; and if the females happen to have eggs, they abandon them, at least till the weather grows warm: and thus a whole hatch is lost in attempting to accelerate the breeding.

The young Canaries differ from the old ones, both in the colour of their plumage, and in some other circumstances. "A young Canary of the same year (observed on the thirteenth of December, 1772*) had its head, its neck, its back, and the quills of the wings, blackish, except the first four quills of the left wing, and the first six of the right, which were whitish; the rump, the coverts of the wings, the tail, which was not entirely formed, and the under part of the body, were also of a whitish colour; and there were as yet no feathers on the belly from the *sternum* to the *anus*. The lower mandible was impressed into the upper, which was thick, and somewhat incurvated." As the bird grows up, the arrangement, and the shades of colour, change; the old ones can be distin-

catchers whom I have consulted tell me, that we ought to avoid giving them chickweed in the time of moulting, for it is too cooling, and would protract their state of indisposition. The other directions of Batteau seem to me well founded.

* Note communicated by M Gueneau de Montbeillard.

guished from the young by their strength, their plumage, and their song; the tints are deeper, and more lively; their toes are rougher, and incline more on black, if they are of the grey kind; their nails are also thicker, and longer than those of the young ones*. The female is often so like the male that they cannot at first be distinguished; however, the colours are always deeper in the male, the head rather thicker and longer, and the temples of a yellow, more inclined to orange; and under the bill there is a sort of yellow flame, which descends lower than in the female; its legs are also stronger; and lastly, it begins to warble almost as soon as it is able to feed by itself. It is true that some females chant at that tender age with almost as much spirit as the males: but, joining all these marks together, we may be able even before the first month to decide which are males or females; after that time there is no more uncertainty in that respect, for the song of the males then begins to betray their sex.

Every sudden utterance of sound is in animals an obvious sign of passion; and as love is of all the inward feelings that which the oftenest, and the most forcibly agitates the frame, the ardour is constantly marked by the expression of the voice. The birds by their song, the bull by his lowing, the horse by his neighing, the bear by his loud murmur, &c. all

* Amusemens Innocens, p. 61 and 62,

announce the working of the same desire. The appetite is much calmer in the female than in the male, and accordingly it is but seldom expressed by the voice. The chant of the hen Canary is only a feeble tone of tender satisfaction, a coy assent to the warm applications of her mate, and inspired by the eloquence of his warble; but when this passion is once excited in her veins, it becomes necessary to her existence; and if she be parted from her lover, she sickens and dies.

It seldom happens that the Canaries bred in a chamber are indisposed before laying; some males only exhaust their vigour, and fall victims to the ardour of passion. If the female becomes sick while hatching, her eggs must be taken from her, and given to another; for though she recovers soon, she would not sit on them again. The first symptom of bad health, especially in the males, is sadness; as soon as they lose their natural cheerfulness, they ought to be put alone in a cage, and set in the sun in the chamber where the female is lodged. If he becomes bloated, we must notice if there be a pimple below his tail; when this pimple is ripe and white, the bird itself often pierces it with the bill; but if the suppuration advances too slowly, we may discharge it with a large needle, and then fill the wound with spittle without salt, which would be too smarting. Next day the patient should be let loose in the chamber, and it will be easy to perceive by his treatment

of the female, and the fondness that he shews, whether he is cured or not. In this last case, we must take him again, and blow through a small quill some white wine under his wings, place him in the sun, and notice next day the state of his health. If he still continue dejected, and indifferent to his female, his recovery is now almost desperate; we must remove him into a separate cage, and give the hen another male like the one she has lost; or if such cannot be had, we must seek one of the same species at least. A greater fondness commonly subsists between those that resemble each other, except in the case of the Pink Canaries, which prefer the females of a different colour; but this new male must not be a novice in love, and consequently must have already raised a hatch. If the female falls sick, the same treatment may be used.

The most common cause of distempers is the too great plenty, or richness of food. When these birds make their nests in a cage, they often eat to excess, or select the nutritious aliments intended for their young; and most of them sicken from repletion, or inflammation. If they be kept in a chamber, this danger is in a great measure removed, their numbers preventing their gluttony. A male which sits too long, is sure of being beat by the other males; and the same is the case with the females. These quarrels give them exercise, and necessarily produce temperance; and for this reason chiefly

it is that they are very rarely sick in a chamber during the time of breeding: their infirmities and diseases appear only after they have hatched; most of them have first the pimple which I have mentioned, and then they all undergo the moulting. Some support well this metamorphosis, and still sing a part of the day; but most of them lose their voice, and a few languish and die. After the females are six or seven years old, many of them die in changing their plumage; the males recover better from the attendant sickness, and survive their mates three or four years. Indeed, we must consider moulting as the regular process of Nature, rather than as an accidental distemper; and if these birds were not reduced by us to captivity, and rendered delicate by our treatment, they would suffer only a slight indisposition, and would spontaneously discover the proper remedies: but at present it is a grievous sickness, often fatal, and which besides admits of few remedies; it is, however, the less dangerous the earlier it happens*. The young Canaries drop their fea-

* In the time of moulting, a bit of steel, and not of iron, should be put in their water, and changed thrice a week. No other remedies are needed, though Hervieux reckons several; only during this critical period, a larger portion of hemp-seed should be mixed with their usual food.—*Note communicated by Father Bougot.*

Observe that steel is recommended instead of iron, only lest the iron should be rusty, in which case it would be more pernicious than useful.

thers the first year six weeks after they are hatched; they become low-spirited, appear bloated, and conceal the head in their plumage: at this time the down only falls; but the following year they lose the quills, even those of the wings and of the tail. The young birds of the later hatches which happen in September or after, suffer much more from the moulting, than those which are excluded in the spring; in that delicate condition the cold is extremely pernicious, and they would all perish if not kept where it is temperate, or even pretty warm. As long as the moulting lasts, that is six weeks or two months, Nature labours at the production of new feathers; and the organic molecules, which were before directed to the supply of the seminal liquor, are now absorbed in this growth; and hence the exuberance of life being diverted into different channels, their ardour ceases, and the business of propagation is for the time suspended.

The most fatal and the most common distemper, especially in young Canaries, is what is called the *swallow* (*avature*), in which the bowels seem to be *swallowed*, and drawn to the extremity of their body; the intestines are perceived through the skin of the belly in the state of inflammation, redness, and distension; the feathers on that part drop, the bird pines, gives over eating, though always sitting beside the food, and dies in a few days. The source of the disease is the excessive abundance or rich-

ness of the aliments. All remedies are vain; and the change of regimen is the only thing which can recover a few out of a great number. The bird is put into a separate cage, and given water and lettuce seeds; thus the heat that consumes it is tempered, and evacuations are sometimes performed which save its life. This distemper also is the fruit of their artificial education, for it seldom attacks those which are trained by their parents; we ought therefore to take the greatest care not to overfeed them with the stick; boiled rape-seed, and some chickweed, are proper, but no sugar or biscuit; and in general we should give them too little rather than too much.

When the Canary utters a frequent feeble cry, which seems to come from the bottom of its breast, it is said to be asthmatic; it is also subject to a certain obstruction of voice, especially after moulting. This sort of asthma is cured by giving it the seeds of plantain, and hard biscuit soaked in white wine; and to restore its voice it ought to have generous food, such as yolks of eggs beat up with crumbs of bread; and for drink, liquorice-water, that is, water in which that root has been steeped and boiled.

The Canaries are also subject to a sort of shanker on the bill. This disorder is owing to the same cause with the *swallow*, the abundance or richness of food producing an inflammation, which, instead of affecting the intestines, some-

times extends to the throat and palate; the same cooling remedies must be applied; they should be given lettuce-seeds, and bruised melon-seeds mixed with their drink.

The mites and the scab with which these small birds are sometimes affected are generally owing to the dirtiness with which they are kept. Care must be taken to preserve them clean, to give them water to bathe in, to avoid putting old or bad wood in their cages, and to cover them only with new cloth that is not moth-eaten; and the seeds and herbs with which they are to be fed should be fanned and washed. We must pay this attention, if we would wish them to be neat and healthy. In the state of nature they would themselves preserve cleanliness; but imprisoned, they are subject to the loathsome disorders incident to that state: however, many of these birds, though reduced to the melancholy condition of captivity, are never sick, and in these habit seems to have become a second nature. In general, the source of their diseases is the heat of their constitution. They always need water, and if a plate with snow be placed in the cage, or even in the volery, they will roll in it several times with expressions of pleasure, though in the coldest weather. This proves that it is rather pernicious than useful to keep them in very hot places*.

* These birds require not to be kept in a warm place, as many pretend; in the most intense colds they welter in snow,

But there is another distemper to which the Canaries and many other birds are subject*, especially in the state of confinement: this is the epilepsy. The yellow Canaries in particular are oftener than the others seized with the falling sickness, which attacks them suddenly, and even surprises them in the midst of their most impassioned warble. It is said that they must not be touched the moment they fall, but must be watched till they discharge a drop of blood from the bill, and that they may be then lifted up, and will recover themselves, and in a short time resume their senses and their life: that it is necessary to wait till Nature makes that salutary effort which is announced by the expression of the drop of blood, and that if handled prematurely, the violence of agitation would bring on instant death. It is to be wished that this observation were ascertained, some circumstances in which appear to me rather doubtful. Certain it is, that if they escape the first attack of this epilepsy, they live a long time after, and sometimes attain the same age with those which have never been affected by that distemper. However, I am inclined to think, that a small incision in the toes would be bene-

when presented them on a plate. For my own part, I have them in a chamber in winter with only an iron grating, and the windows open; they sing admirably, and I never lose any.—*Note communicated by Father Bougot.*

* The jays, the goldfinches, all the parrots, and the largest aras.

ficial, for in that way parrots are cured of the epilepsy.

What miseries in the train of slavery ! Would these birds, if they enjoyed their native freedom, be asthmatic, scabby, and epileptical ? Would they be afflicted by inflammations, abscesses, and shankers ? and the most melancholy of disorders, what is produced by the craving of unsatisfied lust, is it not common to all beings reduced to captivity ? In particular, the females, whose feelings are so nice and so tender, are more subject to it than the males. It has been observed, that after the hen Canary falls sick in the spring before pairing, she shrinks, languishes, and dies. The amorous passion is awakened by the singing of the males around her, while she has at the same time no opportunity of gratification. The males, though they first feel libidinous desires, and always appear more ardent, support better the languor of celibacy ; they seldom die of continence, but they are often killed by excessive venery.

Then hen Canaries can, like the females of other birds, lay eggs without commerce with the male. The egg in itself is, as we have elsewhere observed, only a matrix which the bird excludes, and will remain unprolific, if not impregnated with the seed of the male ; and the heat of incubation, instead of quickening it, only hastens its putrefaction. It has also been remarked, that if the females be entirely sepa-

rated from the males, so as not to see and hear them; they very seldom lay; and that they oftenest drop their eggs, when melted by the view or the song of the males: so much do even distant objects act upon feeling animals, and so many are the ways in which the subtle flame of love is communicated!*

I cannot better close this article, than by an abstract of a letter of the honourable Daines Barrington, Vice-President of the Royal Society, to Dr. Maty the Secretary.

“ Most people who keep Canary birds do not know that they sing chiefly either the titlark or Nightingale notes †.

* We shall here mention two facts to which we were witness. A female sung so well, that she was taken for a male, and paired with another female; the oversight being afterwards discovered, a male was given to her, who taught her the proper functions of her sex: she took to laying and renounced her song. The other fact is that of a female, alive at present, that chants or rather whistles a tune, though she has laid two eggs in her cage, which are found to be addle, as ~~all~~ those are which hens lay without the commerce of a cock.

† I once saw two or three birds which came from the Canary islands, neither of which had any song at all; and I have been informed, that a ship brought a great many of them not long since, which sung as little.

Most of the Canary birds which are imported from Tyrol, have been educated by parents, the progenitor of which was instructed by a nightingale; our English Canary birds have commonly more of the titlark notes.

The traffic of these birds makes a small article of commerce, as four Tyroleze generally bring over to England 1600 every year; and though they carry them on their backs one

“ Nothing, however, can be more marked than the note of a nightingale called its *jug*, which most Canary birds brought from Tyrol commonly have, as well as several nightingale *strokes*, or particular passages in the song of that bird.

“ I mention the superior knowledge in the inhabitants of the capital, because I am convinced that, if others are consulted in relation to the singing of birds, they will mislead, instead of giving any material or useful information.”

thousand miles, as well as pay twenty pounds duty for such a number, yet upon the whole it answers to sell these birds at five shillings a-piece.

The chief place for breeding Canary birds is Inspruck and its environs, from whence they are sent to Constantinople, as well as every part of Europe.—*Phil. Trans.* vol. lxiii. part 2. 10 January, 1773.

FOREIGN BIRDS

THAT ARE RELATED TO THE CANARIES.

THE foreign birds which may be referred to the Canary, are few in number; we are acquainted with only three species. The first is that which was sent to us from the eastern coast of Africa, under the name of the *Mozambique Canary*, which seems to be a shade between the Canaries and the Siskins. It is delineated *Pl. Enl. No. 364, fig. 1 and 2.* Yellow is the prevailing colour of the lower part of the body, and brown that of the upper, except the rump and the coverts of the tail, which are yellow: these coverts, as well as those of the wings and their quills, are edged with white or whitish. The same yellow and brown occur on the head, distributed in alternate bars; that which stretches over the top of the head is brown, next two yellow ones over the eyes, then two brown ones which rise behind the eyes, after these two yellow ones, and last of all two brown ones, which extend from the corners of the bill. This bird is rather smaller than those from the Canary Islands; its length from the tip of the bill to the end of the tail is about four inches

and a half, that of the tail is only about an inch. The female differs very little from the male, either in size or in colour. This bird is perhaps the same with that of Madagascar, mentioned by Flaccourt, under the name of *Mangoiche*, which he says is a species of Canary.

It is likely that this bird, which in its plumage resembles much our variegated Canaries, was their progenitor: and that the entire species belongs only to the ancient continent, and to the Canary islands, which may be considered as adjacent to the main land: for the one mentioned by Brisson under the name of the *Jamaica Canary*, and of which Sloane and Ray have given a short description *, appears to me to be widely different from our Canaries, which are not found

* "Bird like the *Serin*, variegated with cinereous, dilute, yellow, and dusky colours." Its extreme length is eight inches, its alar extent is twelve inches, the bill short and strong, three-fourths of an inch long (or one-third according to Ray), the tail one inch, the leg and foot one inch and one-fourth. (Brisson suspects that Sloane is mistaken in his measures, for the proportions are not consistent.) The upper mandible brown bordering on blue, the lower lighter coloured; the head and the throat grey; the upper part of the body of a yellow brown, the wings and the tail of a deep brown, radiated with white, the breast and belly yellow, the under part of the tail white, the feet blueish, the nails brown, hooked, and very short.—*Sloane's Jamaica*.

It is the *Fringilla Cuna* of Linnæus, and *Grey-headed Finch* of Latham. Its specific character:—"It is dusky yellow above, below yellow, its head and throat grey, its vent white, its wings and tail dusky, with white lines."

at all in America. Historians and travellers inform us that none were originally in Peru, and that the first Canary was introduced there in 1556, and that the spreading of these birds in America, and especially in the Antilles, was long posterior to that date. Father Du Tertre relates that Du Parquet, in 1657, bought of a merchant who touched at these islands, a great number of real Canaries, which he set at liberty; since which time they were heard warbling about his house; so that it is probable that they have multiplied in that country. If true Canaries be found in Jamaica, they may have been descended from those transported to the Antilles, and naturalized there in the year 1657. However, the bird described by Sloane, Ray, and Brisson, by the appellation of *Jamaica Canary*, appears to differ too much from the natives of the Fortunate islands, to be supposed to have originated from those transplanted into the Antilles.

While this article was at the press, we received several Canaries from the Cape of Good Hope, among which I have perceived three males, one female, and a young one of the same year. These males are very like the Green Canary of Provence; they differ in being somewhat larger, and their bills being proportionally thicker: their wings are also better variegated, the quills of the tail edged with a distinct yellow, and they have no yellow on the rump.

In the young Canary, the colours were still fainter, and less marked than in the female.

But whatever small differences exist, I am still the more confirmed that the variegated Canaries of the Cape of Mozambique*, of Provence, and of Italy, are all derived from the same common source, and that they belong to one species, which is spread, and settled in all the climates of the ancient continent suited to its constitution, from Provence and Italy to the Cape of Good Hope, and the adjacent islands. Only this bird has assumed more of the green tint in Provence, more of the grey in Italy, more of the brown or variegated colour at the Cape of Good Hope, and seems by the variety of its plumage to point at the influence of a different climate.

* It appears that the Mozambique Canary is not confined exclusively to that region. I have found among the drawings of Commerson a coloured figure of this bird very distinctly marked. Commerson calls it the Cape Canary, and informs us that it had been carried to the isle of France, where it was naturalized, and even greatly multiplied, and was known there by the name of the *Bird of the Cape*. We may expect to find in the same manner at Mozambique, and in some other countries of Africa, the variegated Canaries of the Cape, perhaps even those from the Fortunate islands, and probably many other varieties of this species.

THE WORABE'E *.

The second species which appears to us to be the nearest related to the Canaries, is a small Abyssinian bird, of which we have seen the figure excellently delineated and coloured by Mr. Bruce, under the appellation of the Worabée of Abyssinia.

This small bird presents not only the colours of certain varieties of the Canary, the yellow and the black, but it has the same bulk nearly; and, except its being rather rounder, the same shape. Its bill is also similar, and it prefers an oily seed as the Canary does millet and panic. But the Worabée has an exclusive predilection for a plant that bears the oily seed which I have

* CHARACTER SPECIFICUS.

FRINGILLA ABYSSINICA. F. flava, subtus collarique cervicis nigra, alis caudaque nigris marginibus flavescens.

—*Lath. Ind. Orn.* i. p. 457. No. 79.

FRINGILLA ABYSSINICA.—*Gmel. Syst.* i. p. 927.

LE WORABE'E.—*Buff. par Sonn.* xlvii. p. 267.

BLACK-COLLARED FINCH.—*Lath. Syst.* iii. p. 300. 76.

HABITAT

in Abyssinia.—Gregaria.

W.

mentioned, and which is called *Nuk** in the Abyssinian language; it never wanders far from that plant, and seldom loses sight of it.

In the Worabée, the sides of the head, as far as below the eyes, the throat, the fore part of the neck, the breast, and the top of the belly to the legs, are black; the upper part of the head, and all the body and the lower belly, are yellow, except a kind of black collar, which encircles the neck behind, and is set off by the yellow. The coverts and the quills of the wings are black, edged with a lighter colour; the feathers of the tail are also black, but with a greenish yellow border; the bill likewise is black, and the legs of a light brown. This bird keeps in flocks, but we know nothing more in regard to its mode of life.

* The flower of this plant is yellow, and of the shape of a crescent; the stalk rises only two or three inches. From the seed an oil is extracted, which is much used by the monks of that country.

THE ULTRA-MARINE*.

The third species also of these foreign birds, which are related to the Canary, is known to us from the drawings of Mr. Bruce. I call this Abyssinian bird the *Ultra-Marine*, because its plumage is of a fine deep blue. In the first year this beautiful colour does not exist, and the plumage is grey as that of the skylark, and this grey always continues in the female, but the males assume the charming blue the second year before the vernal equinox.

These birds have a white bill and red legs. They are common in Abyssinia, and never change their habitation. They are nearly of the bulk of the Canaries, but their head is round; their wings extend beyond the middle of the tail. Their warble is very pleasant, and this circumstance seems the more to point out their relation to our Canaries.

* CHARACTER SPECIFICUS.

FRINGILLA ULTRAMARINA. F. tota intense cœrulea
rostro albo, pedibus rubris.—*Lath. Ind. Orn. i. p. 457*
No: 78.

FRINGILLA ULTRAMARINA.—*Gmel. Syst. i. p. 927.*

L'OUTRE-MER.—*Buff. par Sonn. xlvii. p. 269.*

ULTRAMARINE FINCH.—*Lath. Syn. iii. p. 301. 71.*

HABITAT

in Abyssinia.

W.

THE HABESH OF SYRIA*.

MR. Bruce supposes this bird to be a species of linnet, and I ought to pay deference to the opinion of so good an observer; but that gentleman having figured it with a thick short bill, very like that of the canaries, I have ventured to place it between the canaries and linnets.

The upper part of its head is of a fine bright red; the cheeks, the throat, and the upper part of the neck, are a mottled blackish brown; the rest of the neck, the breast, the upper part of the body, and the small coverts of the wings, variegated with brown, yellow, and blackish; the great coverts of the wings of a deep ash, edged with a lighter colour; the quills of the tail and the great quills of the wings also cinereous, bordered on the outside with a bright

* CHARACTER SPECIFICUS.

FRINGILLA SYRIACA. F. fusco nigricante flavoque varia, subtus albida maculis obscuris, vertico rubro.—*Lath. Ind.*

Orn. i. p. 457. No: 80.

FRINGILLA SYRIACA.—*Gmel. Syst.* i. p. 927.

L'HABESCH de SYRIE.—*Buff. par Sonn.* xlvii. p. 273.

TRIPOLINE FINCH.—*Lath. Syn.* iii. p. 301. 72.

HABITAT

in Syria,

W.

orange; the belly and the under part of the tail dirty white, with obscure yellowish and blackish spots; the bill and legs of a leaden colour. The wings reach as far as the middle of the tail, which is forked.

The Habesh is thicker than our linnet; its body is also fuller, and it sings prettily. It is a bird of passage; but Mr. Bruce cannot trace its route, and he assures me, that in the course of his travels he never saw it except at Tripoli in Syria.

THE LINNET *.

NATURE herself seems to have assigned these birds a place next after the canaries; for their mutual commerce succeeds better than the intercourse of either with any other contiguous species; and what points out the close-

* CHARACTER SPECIFICUS.

FRINGILLA LINOTA. F. fusco-castanea, subtus alba, fascia alarum longitudinali alba, rectricibus nigris, marginibus undique albis.—*Lath. Ind. Orn.* t. p. 437. No. 21.

FRINGILLA LINOTA.—*Gmel. Syst.* i. p. 816.

LINARIA.—*Ran. Syn.* p. 90. A. 1.—*Will.* p. 196. (Angl.) p. 256. t. 46.—*Bris.* iii. p. 181. 29.

LA LINOTTE.—*Buff. Pl. Enl.* 151. & 1.—*Bon.* p. 275. pl. 107. f. 3.

COMMON LINNET.—*Br. Zool.* No.

under the name of the

HABITAT

in Europa; in Anglia frequens.



THE LINNAT

ness of this relation, the progeny is prolific*, especially when a male Linnet is joined with a female canary.

Few birds are so common as the Linnet, but still fewer perhaps unite so many amiable qualities: a pleasant warble, a rich plumage, docility of disposition, susceptibility of attachment; possessing whatever, in short, could invite the attention of man, and contribute to his delight. Endowed with such talents, it could not long preserve its freedom; and still less, when nursed in the bosom of slavery, could it retain unsullied the beauties of its original purity. In fact, the charming red colour with which nature has painted its head and breast, and which in the state of liberty sparkles with durable lustre, wears off by degrees, and soon disappears entirely in our cages and voleries. There remain only a few obscure vestiges after the first moulting*.

* This observation was communicated by Daubenton, the younger. Frisch assures us, that pairing a Vine Linnet (Redpoll) with a white hen canary, that was in the habit of coming abroad every day and returning to its roost, it made its nest and laid its eggs in a neighbouring bush, and when the young were hatched, it brought them to the window of the house. He adds, that this cross-breed had the whole plumage of the mother, and the red spots of the father, especially on the head.

† The red of the head changes into a rusty-brown varied

With regard to the change effected in its song, we substitute for the free and varied modulations which spring and love inspire, the strained notes of a harsh music, which they repeat but imperfectly, and which has neither the beauties of art nor the charms of nature. Some have also succeeded in teaching it to speak different languages; that is, to whistle some Italian, French, and English words, &c. and sometimes even to pronounce these with considerable fluency. Many persons have from curiosity gone from London to Kensington merely to hear an apothecary's Linnet, which articulated the words *pretty boy*. The fact is, it had been taken out of the nest when only two or three days old, before it had time to acquire the parent song; and just beginning to listen with attention, it was struck with the sound of *pretty boy*, and learned it from imitation*. This fact, together with many others,

with blackish, and that of the breast passes into nearly the same colour; but the new shades are not so deep. An *amateur* told me, that he has raised some of these Linnets which preserved the red: this fact stands single.

* A goldfinch which was taken from the nest two or three days after hatching, and set in a window that looked into a garden where the wrens resorted, caught their song, and had not a single note of its own species.

A sparrow was taken from the nest when it was fledged, and educated under a Linnet; but hearing by accident a goldfinch, its song was a mixture of that of the Linnet and the goldfinch.

appears to me to establish the opinion of the Honourable Daines Barrington, that birds have no innate song; and that the warble peculiar to the different species, and its varieties, have nearly the same origin with the languages and the dialects of various nations*. Mr. Barrington tells us, that in experiments of this kind he preferred a young cock Linnet of three weeks beginning to fly, not only on account of its great facility and talent for imitation, but

A robin was set under a very fine nightingale, which began to be out of song, and in a fortnight was perfectly mute; the robin had three parts in four of the nightingale's warble, the rest being a confused jumble.

Lastly, Mr. Barrington adds, that the canaries imported from Tyrol seem to have been educated by parents the progenitor of which was instructed by a nightingale; while the canaries bred in England appear to have derived their song from the tit-lark.—*Philosoph. Transac. Jan. 10, 1773.*

If we breed a young Linnet with a chaffinch, or nightingale, says Gesner, it will acquire their song; and particularly that part of the chaffinch's song that is called the *alarum sound*.—REITERZU, p. 591.

* The loss of the parent-cock at the critical time for instruction occasions undoubtedly the varieties in the song of each species; because then the nestling has either attended to the song of some other birds, or perhaps invented some notes of its own, which are perpetuated from generation to generation, till similar accidents produce other alterations. The truth is, that scarcely any two birds of the same species have exactly the same notes, if they are accurately attended to, though there is a general resemblance.—BARRINGTON, *Philos. Trans.* 1773.

because in that species it is easier to distinguish the sex ; some of the outer quills of the wings in the male having the outer edge white as far as the shaft, while in the female these are only bordered with that colour.

It follows from the experiments of this learned gentleman, that the young Linnets educated by the different kinds of larks, and even by an African Linnet, called *Vengolina*, of which we shall afterwards treat, acquired not the song of their parent, but that of their instructor. Only a few retained the *call* of its species, or the Linnet's *chuckle*, which they had heard of their parents before they were parted.

It is extremely doubtful whether our common Linnet, called by some the *Grey Linnet*, is different from that termed the *Vine Linnet*, or the *Red Linnet** : for, 1. The red spots which distinguish the males in the Red Linnet are far from being constant, since, as we have already observed, they become obliterated in confinement†. 2. They are not a discriminating character, as traces of them are to be found in the bird described to be the male of the Grey

* *Fringilla cannabina*.—*Linn.*

† Of four cock Linnets, which were consequently red, brought to me on the 12th of July, I exposed one to the open air, and set three in a chamber, two of which were shut up in the same cage. The red on the head of the latter began to disappear by the 28th of August, and also that on the

Linnet, where the feathers on the breast are of a dull red in their middle. 3. The moulting tarnishes, and for a time almost discharges this red, which recovers not its lustre till the fine weather, but from the end of September colours the middle of the feathers on the breast, as in that reckoned by Brisson a common cock Linnet. 4. Gesner at Turin, Olin at Rome, Linnæus at Stockholm*, and Belon in France, have known in their respective countries only

lower part of the breast. On the 8th of September one of the two was found dead; its head was entirely divested of feathers, and even slightly wounded. I discovered that the one had fought the other after the moulting, as if their acquaintance was dissolved by the disguise of plumage. The red of the head of the vanquished Linnet no longer existed, for all the feathers had dropped, and that of the breast was more than half effaced.

The third which was shut up was very late in moulting, and retained its red till that time. The one that was kept in the open air made its escape at the end of three months; but it had already lost all its red.—It follows from this experiment, that either the open air hastens the disappearance of the red, by advancing the moulting; or that the want of fresh air has a smaller share in the change of plumage in these birds than the loss of liberty.

* No mention is made of the Grey Linnet in the *Fauna Suecica*. Klein speaks of one Zarn, author of a letter on the birds of Germany, where he endeavours to prove that there is only one species of Linnet. I have heard the same assertion of many bird-catchers, who had never seen the latter; and Hebert, who is certainly a fit judge of the matter, is of the same opinion.

the Red Linnets. 5. Bird-catchers, who have in France followed that profession more than thirty years, have never found a single cock Linnet which had not the red shade corresponding to the season; and at the same time we see many Grey Linnets in the cage. 6. Even those who admit the existence of Grey Linnets in the state of nature agree, that they are scarcely ever caught, particularly in summer, which they attribute to their shy disposition. 7. Add to all these, that the Red and Grey Linnets are very similar in the rest of their plumage, in their size, in the proportions and shape of their parts, in their song, and in their habits. And it will be easy to infer, that if Grey Linnets really do exist, they are either, 1. all females; or, 2. all young males of the year's hatch before October, for at that time they begin to be marked; 3. such as being bred apart from the mothers cannot assume red in the state of captivity; 4. those which being caught lose their tint in the cage*; or, lastly, those in which this beautiful colour is effaced by moulting, disease, or some other cause.

The reader will not then be surprised that I refer these two Linnets to the same identical

* We must observe, that those birds which have had the red spots, but lost them, still retain on the same parts a rufous colour, approaching to red; which never appears in the young that have been bred without the mothers, and that consequently have never been marked with red.

species ; and consider the grey sort as only an accidental variety, partly effected by education, and afterwards mistaken by authors.

The Linnet often builds its nest in vineyards, and hence it has been called the *Vine Linnet*. Sometimes it places its nest on the ground ; at other times it fixes it between two props, or even in the vine itself ; it breeds also in juniper, gooseberry, and hazel-nut trees, in young copses, &c. A great number of these nests have been brought to me in the month of May, a few in July, and only one in September : they were all composed of slender roots, small leaves, and moss on the outside, and lined with feathers, hairs, and a great deal of wool. I never found more than six eggs ; that of the fourth of September had only three ; they were of a dirty white, spotted with brown-red at the large end. The Linnets have seldom more than two hatches, except their eggs be robbed, which obliges them to renew their labours ; and in this way they may be made to lay four times in the year. The mother feeds the young by disgorging into their bill what had been prepared and half digested in her craw.

After the hatching is over, and the family raised, the Linnets go in numerous flocks, which are formed about the end of August, when the hemp is arrived at maturity ; and at this time sixty have been caught in one drawing of the net*, and out of these were forty males. They

* The lark-net may be used, but it ought to be rather

continue to live thus in society during the whole winter; they fly very crowded, alight and rise together, perch on the same trees, and about the beginning of spring they all chant at once; they lodge during the night in oaks, and elms, whose leaves, though dry, have not yet fallen; they are seen too on the linden trees and poplars, and feed upon the buds; they live also upon all kinds of small seeds, particularly those of thistles, &c. and hence they haunt indiscriminately uncultivated lands, and ploughed fields. Their walk is a sort of hopping; but their flight is continued and uniform, and not like that of the sparrow, composed of a succession of jerks.

The song of the Linnet is announced by a sort of prelude. In Italy the Linnets of Abruzzo and of the Marche of Ancona are preferred. It is generally supposed in France that the warble of the Red Linnet is superior to that of the grey. This is consonant to reason; for a bird which has formed its song in the bosom of liberty, and from the impulse of its inward feelings, must have more affecting and expressive airs, than one that has no object but only to cheer its languor, or to give the necessary exercise to its vocal organs.

The females are naturally destitute of song,

smaller and closer. One or two cock Linnets should be had for calls. Chaffinches, and other small birds, are often caught with the Linnets.

nor can they ever acquire it. The adult males caught in the net profit as little by instruction; and the young males taken out of the nest are alone susceptible of education. They are fed with oatmeal gruel, and rape-seed ground with milk or sugared-water; and in the evening they are whistled to in the weak light of a candle, care being taken to articulate distinctly the words which they are wanted to repeat. Sometimes, to begin them, they are held on the finger before a mirror, in which they view their image, and believe they see another bird of their own species; they soon fancy that they hear the notes of a companion, and this illusion produces a sort of emulation which animates their songs, and quickens their progress. It is supposed that they sing more in a small cage than in a large one.

The very name of these birds points out their proper food. They are called Linnets (*Linariae*) because they prefer lint-seed; to this are added the seeds of panic, of rape, of hemp, of millet, of Canary-grass, of raddish, of cabbage, of poppy*, of plantain, of beet, and sometimes those of melon bruised. From time to time they have sweet cake, prickly-sorrel, chickweed, some ears of wheat, oats pounded, and even a little salt; but all these must be properly varied. They break the small grains

* Gesner says, that if poppy-seeds alone be given for food, either to Linnets or goldfinches, they will become blind.

in their bill, and reject the shell; they ought to have very little hemp-seed, for it fattens them too much; and this excessive fat occasions their death, or at least renders them unfit for singing. In thus feeding and raising them oneself, we shall not only teach them what airs we choose with a Canary-whistle, a flageolet, &c. but we shall tame them. Olina advises to shelter them from cold, and even to employ remedies for their diseases; that we ought, for instance, to put in their cage little bits of plaster to prevent costiveness, to which they are subject: he directs oxymel, succory, &c. in cases of asthma, phthisic*, and certain convulsions, or beatings with the bill. This last, however, I should suppose, is only a kind of caressing; the little animal, overcome by inward workings, makes the most violent efforts to communicate its sentiments. At any rate we must attend much to the choice and quality of the grain that is given it, and observe great cleanliness in its food, drink, and volery; when such care is taken, the bird may live in confinement five or six years, according to Olina; and much longer according to others†.

* The captive Linnets are also subject to the epilepsy, and the boil. Some say that they can scarcely ever be cured of this boil; others direct to puncture it seasonably, and pour wine into the wound.

† There is one at Montbeillard that is certainly known to be seventeen years old.

They distinguish those who are kind to them, become fond of them, alight on them out of preference, and behold them with an affectionate air. If we would abuse their docility, we might even make them draw water; for they acquire habits as readily as the siskin and goldfinch. They begin to moult about the dog-days, and sometimes much later: a Linnet and a siskin have been known not to drop their feathers before October; they had sung till that time, and their music was superior to that of any other bird in the same volery; and their moult, though late in the season, was expeditious and easy.

The Linnet is a pulverulent bird, and it would be proper to strew in the bottom of the cage a layer of fine sand, and renew it occasionally; there ought also to be a small bath.—The total length of the bird is five inches and a few lines; its alar extent nearly nine inches; its bill five lines; its tail two inches, somewhat forked, and stretching an inch beyond the wings.

In the male the top of the head and the breast are red; the throat, and the under part of the body, rusty-white; the upper part, chesnut; almost all the feathers of the tail and of the wings are black, edged with white; and hence when the wings are closed there is a white ray parallel to the feathers. The female has commonly none of the red that we have

mentioned; and the plumage is more varied than in the male*.

* The two kinds of Linnets which Buffon conceives to be originally the same, are distinguished by systematic writers :—

1. *The Common Linnet*, called sometimes *the Grey Linnet*. It is the *Fringilla Linota* of Gmelin; the *Linaria* of Ray, Willughby, Brisson, Frisch, &c. The German name is *Flacks-Finch*, that is *Flax Finch*; the Italian *Fanillo*; the Dutch, *Knuu*; the Brabantish, *Vlascinch*; the Turkish, *Gezezen*. Aristotle termed it *Αγρῖδος*. The character given by Brisson is :—“ It is of a dusky chesnut, and beneath tawny white; its wings are marked by a longitudinal white stripe; its tail-quills are black, edged with white.” In the beginning of the spring the breast of the male is of a rose-crimson colour, which does not take place in the female. It builds its nest with moss and bents, and lines it with wool and hair; lays five eggs.

2. *The Greater Red-headed Linnet*, or *Redpoll*, which Buffon terms *The Greater Vire Linnet*. It is the *Fringilla Canadubina* of Linnæus, or the *Hemp Finch*; the *Linaria Rubra* of Gesner, Ray, Brisson, &c. The German name is *Hänfling* or *Hemp Bird*; and the Italian *Fanello Marino*, or *Sea-Linnet*. It is thus characterised by Brisson :—“ It is of a dusky-chesnut, the margins of its feathers more dilute, and beneath of a tawny-white; its wings marked with a white longitudinal stripe; its tail quills black, the whole of their borders white.” The Linnæan character :—“ The primary quills of its wings, and those of the tail, black, and white at both the edges.” It is found both in Europe and in America. It is smaller than the preceding, and is gregarious in winter. The female has neither the red spot on the crown, nor the blush-coloured breast. It nestles on the ground. It is a very familiar bird, and quite cheerful a few minutes after it is caught.

The opinion of our ingenious author with respect to the identity of the species of the Redpoll, and of the Common Linnet, is very plausible; but it seems not altogether well founded. The Redpoll is smaller than the Linnet; it nestles on the ground, while the latter breeds in furze and thorn-hedges. The egg of the Linnet is of a very faint blue, dotted with rusty specks, and interspersed with minute brown streaks. The egg of the Redpoll is a very faint green, sprinkled with rusty dots, and rather sharp at the small end.

VARIETIES OF THE LINNET.

I. THE WHITE LINNET. I have seen this variety at the house of Desmoulin, the painter. White was the predominant colour of its plumage, but the quills of the wings and of the tail were black, edged with white, as the Common Linnet, and some vestiges of grey also were perceptible on the upper coverts of the wings.

II. THE BLACK-LEGGED LINNET. Its bill is greenish, and the tail much forked ; in other respects, it is the same in size, in proportions, and even in colours, with the Common Linnet. This bird is found in Lorraine, and we are indebted for our information to Dr. Lottinger of Sarbourg.

THE STRASBURG FINCH *.

LITTLE is known with regard to this bird, yet enough to indicate its affinity to the Linnet. It is of the same size, it feeds upon the same seeds, it flies also in numerous flocks, and has eggs of the same colour: its tail is forked: the upper part of its body of a deep brown, the breast rufous, speckled with brown, and the belly white. It lays indeed three or four eggs only, according to Gesner, and its legs are red. But was Gesner accurately acquainted with the number of eggs? and with regard to the red colour of the legs, we have seen, and we

* CHARACTER SPECIFICUS.

FRINGILLA ARGENTORATENSIS. F. fusca, subtus rufa
" fusco maculata, abdomine infimo albido.—*Lath. Ind.*
Orn. i. p. 460. No. 87.

FRINGILLA ARGENTORATENSIS.—*Gmel. Syst.* i. p. 918.

LINARIA ARGENTORATENSIS.—*Bris.* iii. p. 146. 34.

LE GYNTEL de STRASBOURG.—*Buff. par Sonn.* xlvii,
p. 300.

STRASBURGH FINCH.—*Lath. Syn.* iii. p. 308. 77.

HABITAT

circa Argentoratum; magnitudine Linotæ.

W.

shall have other opportunities of being convinced, that this property is far from being foreign to Linnets, especially to those in their natural state. The analogy appears even amidst the differences, and I am inclined to believe, that, when the Strasburg Finch is better known, it may be referred as a variety derived from climate, situation, &c. to the Common Linnet.

THE MOUNTAIN LINNET*.

THIS bird is found in the mountainous part of Derbyshire in England †; it is larger than the ordinary sort, and its bill proportionally more slender. The red, which appears on the

* CHARACTER SPECIFICUS.

FRINGILLA MONTIUM. F. nigro rufescenteque varia, sub-
tus albida, pennis in collo inferiore medio nigris, fascia
alarum alba, uropygio rubro.—*Lath. Ind. Orn.* i. p. 459.
No. 84.

FRINGILLA MONTIUM.—*Gmel. Syst.* i. p. 917.

LINARIA MONTANA.—*Bris.* iii. p. 145. 33.—*Raii Sy.* p. 91.
A. 4.—*Will.* p. 191.

LA LINOTTE de MONTAGNE.—*Buff. par Sonn.* xlvii. p. 302.

MOUNTAIN LINNET.—*Br. Zool.* No. 133. 1. 53.—*Will.*
(*Angl.*) p. 261.—*Arct. Zool.* ii. p. 380. C.—*Lath. Syn.* iii.
p. 307. 76.

HABITAT

in Europa; hyeme turmatim versus australiores Angliæ mi-
grans. W.

† May not this be the second Linnet mentioned by Ges-
ner, and after him by Schwenckfeld, which is more shy than
the Common Linnet, has an inferior song, and inhabits arid
mountains, at least if we judge from the name that he gives it,
Stein Haënfing (*Stone Linnet*) ?

head and breast of the common cock Linnet, occurs in the male of this species on the rump. In other respects the plumage is nearly the same. The breast and throat are variegated with black and white; the head with black and cinereous, and the back with black and rusty. The wings have a transverse white ray, which is very distinct, being on a black ground; it is formed by the great coverts which are tipped with white. The tail is two inches and a half long, composed of twelve brown quills, of which the lateral ones have a white edging, which is broader the nearer the quill lies to the outside.

It is probable that the Mountain Linnet has a forked tail, and that its warble is pleasant, though Willughby does not expressly mention these circumstances. But he reckons these two characters peculiar to the Linnet, with which he ranges it. If we be permitted to draw this inference, we might consider the Mountain Linnet as only a variety resulting from climate or situation*.

* The Mountain Linnet advances during the winter in flocks to the southern parts of England, and perhaps breeds in the northern counties. It is larger than the redpoll, being six inches and a half long. Its egg resembles that of the common Linnet in colour, but the specks are thinner scattered, and its shape is rather more bulged.

THE TWITE*.

WHEN we treat of birds whose colours are so variable as in the present, we should fall into numberless mistakes, if we considered them as specific characters. We have already seen that the common Linnet, in the state of liberty, was marked with red on the head and breast; that the captive Linnet had the same colour only on the breast, and that concealed; that the Strasbourg Linnet had it on the legs; and that the Mountain Linnet was painted with it on the rump. Brisson says, that what he calls the

* CHARACTER SPECIFICUS.

FRINGILLA LINARIA. F. supra varia, subtus rufescens, abdomine albedo, superciliis fasciaque alarum rufescentibus, vertice uropygioque rubris.—*Lath. Ind. Orn.* i. p. 459. No. 83. Var. β .

LINARIA MINIMA.—*Bris.* iii. p. 142. 32.

LE CABARET.—*Buff. Pl. Enl.* 485. f. 2.—*Buff. par Sonn.* xlvii. p. 305. pl. 107. fig. 2.

TWITE.—*Alb.* iii. t. 74.—*Id. Song Birds*, t. p. 37.—*Lath. Syn.* ii. p. 307.

HABITAT

in Europa.—Longitudo $4\frac{1}{2}$ pollicum.

W.

Little Vine Linnet is red on the head and breast; and Gesner adds, on the rump. Willughby mentions a small Linnet which had a red spot on the head, and in that circumstance resembled the two described by Aldrovandus, though it differed in other respects. Lastly, the *Cabaret* of Brisson was marked with red on the head and rump, but that of Frisch had none on the head. It is obvious, that a great part of these varieties is owing to the seasons and the circumstances in which these birds have been seen. If in the middle of spring, they were clothed in their richest colours; if during the moulting season, the red had disappeared; if immediately after, it was not yet resumed. If they were kept in a cage, the change would be in proportion to the length of their confinement; and as the feathers of the different parts of the body would drop at different times, there would be abundant source of diversity. In this uncertainty, we are obliged, in order to determine the species, to recur to the more permanent properties; the shape of the body, the instincts, and habits. Applying this method, I can perceive only two kinds of birds that have received the name of Little Linnet: the one, which never sings, appears but once in six or seven years, arrives in numerous flocks, resembles the siskin, &c.: it is the Little Vine Linnet of Brisson: the other is the Twite of this article.

The younger Daubenton had for two or three

years one of these birds, which was caught in a net. It was at first very shy, but it became gradually reconciled, and grew quite familiar. It seemed to prefer hemp-seed for its food. It had a sweet mellow note, much like that of the hedge pettychaps. It lost all its red the first year, and never recovered it; the other colours suffered no alteration. When sick or in moult, its bill was observed to become immediately pale and yellowish; and as the bird recovered, it passed through all the shades to its proper brown cast. The female is not entirely destitute of brilliancy of plumage; it is marked with red on the head, but not on the rump. Though smaller than the common hen Linnet, its voice is stronger and more varied. This bird is rare both in Germany and in France. It flies rapidly, but never in large flocks; its bill is rather more slender in proportion than that of the common linnet*.

* In the *Encyclopéd. Méthod.* Ornithological part, under the article *Cabaret*, we find the following observations by Maudny:—The Cabaret is a bird of passage, it visits us in the middle of summer, and disappears in the spring. It does not migrate in flocks, and is always solitary, or at most with but few companions. It sings agreeably, is easily snared, and during winter is not rare with the bird-catchers. They feed it with hemp-seed, and sometimes millet. At first it is impatient in captivity, but it soon becomes reconciled, and, to a certain degree, familiar. At the first moulting it loses its red colour, which it never regains, not even if placed in an aviary in the open air.

W.

Measures :—The total length of the Twite is four inches and a half; its wings are eight inches across; its bill rather more than four lines; its tail two inches: this is forked, and projects only eight lines beyond the wings.

Colours :—The upper part of the head and the rump are red; there is a reddish bar under the eyes; the upper part of the body is variegated with black and rust colour; the under part of the body rusty, spotted with blackish below the throat; the belly is white; the legs brown, sometimes black. The nails are very long, and that of the hind toe is longer than the toe itself*.

* Linnæus makes the Twite a variety of the Mountain Linnet; but Dr. Latham conceives it to be more related to the Redpoll. If we were to judge from the egg of the Twite, we should regard it as a variety of the Redpoll. The egg of the Twite, though rather smaller than that of the Redpoll, is of the same shape and colour; only the dots are orange, smaller, and more thickly spread.

FOREIGN BIRDS

THAT ARE RELATED TO THE LINNET.

I.

THE VENGOLINE* †.

ALL that is known with regard to the history of this bird is, that it is found in the kingdom

* CHARACTER SPECIFICUS.

FRINGILLA ANGOLENSIS. F. fusco-cinerea fusco maculata, subtus spadicea, capistro gulaque nigris, genis gutturoque albo maculatis, uropygio luteo.—*Lath. Ind. Orn.* i. p. 460. No. 88.

FRINGILLA ANGOLENSIS.—*Gmel. Syst.* i. p. 918.

LINARIA ANGOLENSIS.—*Bris. Sup.* p. 81.

LE VENGOLINE.—*Buff. par Sonn.* xlvii. p. 311.

VENGOLINE.—*Phil. Trans.* lxiii. p. 254. †.—*Br. Zool.* ii. App. p. 666.

LINNETS from ANGOLA.—*Edw.* t. 129. M. et F.

ANGOLA FINCH.—*Lath. Syn.* iii. p. 309. 78.

HABITAT

in Angola.

W.

† This name was applied to it by Mr. Daines Barrington.

of Angola; that it is very familiar; that it is ranked among the finest warblers of that country; and that its song is not the same with that of our Linnet. The neck, the upper part of the head and of the body, are variegated with two sorts of brown; the rump has a beautiful spot of yellow, which extends to the quills of the tail: these quills are brown, edged and tipped with light grey, as also the quills of the wings, and their great and middle coverts. The sides of the head are of a light rust colour, and there is a brown streak below the eyes; the under part of the body and the sides are spotted with brown on a lighter ground.

Edwards, who first described this bird, and who has given a figure of it at the bottom of Pl. 129, is inclined to think it is a female of another that is represented at the top of the same plate. This other bird is called *Negral* or *Tabaque*, and its song is much like that of the Vengoline. For my own part, I must confess, that the song* of this makes me doubt of its being a female. I should rather suppose that they are two males of the same species, but from different climates, where each would have a distinct name; or at least that they are two males of the same climate, one of which being bred in a volery, had lost the lustre of its plum-

* Daines Barrington says, that the Vengoline excels in point of song all the birds of Asia, Africa, and America, except only the American Mocking Bird.

age, and the other not being caught before it was adult, or having been kept but a short time in the cage, had preserved its colours better. In fact the colours of the Negral are richer and more marked than those of the Vengolinc. The throat, the face, and the streak below the eyes, are black; the cheeks white, the breast and all the under part of the body of an orange colour, without specks, and which assume a deeper shade under the belly and the tail. These two birds are of the size of our Linnet; and Edwards adds, that they have the same aspect.

II.

THE GREYFINCH*.

We are indebted to Edwards for the knowledge of this bird, who had it alive, and has

* CHARACTER SPECIFICUS.

LOXIA CANA. *L. cana*, remigibus rectricibusque fuscis, pedibus rubris.—*Lath. Ind. Orn.* i. p. 393. No. 77.

LOXIA CANA.—*Gmel. Syst.* i. p. 859.

FRINGILLA CINEREA INDICA.—*Bris. Sup.* p. 83.

LA LINOTTE GRIS de FER.—*Buff. par Sonn.* xlvii. p. 315.

GREYFINCH.—*Edw.* t. 179. f. 1.

CINEREOUS GROSBEAK.—*Lath. Syn.* iii. p. 154. 73.

HABITAT

in Asia.

W.

given a figure and description of it, without informing us from what country it came. Its warble is very pleasant. It has the gestures, the size, the shape, and the proportions of the linnet, only its bill is rather stronger. The under part of its body is of a very light ash-colour, the rump rather darker; the back, the neck, and the upper part of the head iron-grey; the quills of the tail and of the wings blackish, edged with light cinereous, except the longest quills of the wings, these being entirely black near the end, and white at their origin; which gives the wing a white border in its middle part. The lower mandible is encircled at its base with white, and this colour extends as far as the eyes.

III.

THE YELLOW-HEADED LINNET*.

Edwards knew that this bird was called by some the *Mexican Sparrow* †, and he has ranged it with the Linnets, because it is more related to these than to the sparrows. It is indeed true that it also bears some analogy to the canaries, and we might place it with the habesh, between the linnets and canaries; but the obscurity of its history renders it more difficult to assign it the proper rank.

It is of a pale flesh-colour, the feet of the same, but duskier; the fore part of the head

* CHARACTER SPECIFICUS.

LOXIA MEXICANA. L. grisea, fronte gula uropygio superciliisque luteis.—*Lath. Ind. Orn.* i. p. 385. No. 50.

LOXIA MEXICANA.—*Gmel. Syst.* i. p. 854.—*Bris.* iii. p. 97. 12.

LA LINOTTE à TÊTE JAUNE.—*Buff. par Sonn.* xlvii. p. 317.

YELLOW-HEADED GROSBEAK.—*Edw.* t. 44.—*Lath. Syn.* iii. p. 140. 46.

HABITAT

in Mexico.—5½ pollices longa.

W.

† Dr. Fermen, in his description of Surinam, mentions a *Linnet with a yellow throat and bill*, the rest of the plumage being cinereous. "It haunts the savannas, and is larger than a sparrow." . . Its song is not so pleasant as to deserve to be kept in a cage, but it is reckoned as a sort of ortolan, because it is delicate eating.

and throat yellow, and upon this yellow ground there is a brown bar on each side of the head, rising from the eye and descending on the sides of the neck; all the upper part of the body is brown, but deeper on the quills of the tail than any where else, and sprinkled with lighter spots on the neck and back; the lower part of the body is yellowish, with brown longitudinal spots scattered thinly over the belly and breast.

This bird was brought from Mexico. Brisson says that it is nearly of the size of the brambbling; but if we judge by the figure which Edwards gives from the life, it must be thicker.

IV.

THE DUSKY FINCH*.

Our knowledge of this bird is drawn from Edwards. Almost all its feathers are blackish,

* CHARACTER SPECIFICUS.

FRINGILLA OBSCURA. *F. fusco-nigricans, pectore uropygioque cinerascens, pennis apice dilutioribus.*—*Lath. Ind. Orn.* i. p. 460. No. 89.

FRINGILLA ATRA.—*Gmel. Syst.* i. p. 918.

LA LINOTTE BRUNE.—*Buff. par Sonn.* xlvii. p. 320.

DUSKY FINCH.—*Lath. Syn.* iii. p. 310. 79.—*Edw. t.* 270.

HABITAT

in Angola, Brasilia?—4 pollices longa.

W.

edged with a lighter colour, which has a reddish cast on the upper part of the body: the general colour that results from this mixture is deep brown, though varied. It has a cinereous tint on the breast and rump; the bill is also cinereous, and the legs are brown.

I presume that Brisson ought not to confound this bird with the *Little Brown Sparrow* of Catesby, whose plumage is of an uniform brown, without any moulting, and therefore quite different. But the difference of climate is still greater: for Edwards's Dusky Linnet came probably from Brazil, perhaps even from Africa; whereas Catesby's *Little Brown Sparrow* is found in Carolina and Virginia, where it breeds and continues the whole year. Catesby tells us, that it lives upon insects, that it is almost always alone, that it is not very common, that it visits inhabited places, and that it is constantly hopping among the bushes. We are not acquainted with the habits of the Dusky Linnet.

THE MINISTER*.

THIS is the name given by bird-fanciers to a Carolina bird, which others call the *Bishop*, but which must not be confounded with the Bishop of Brazil, which is a Tanagre. I place it near the Linnets, because in the time of moulting it is so much like these, as to be mistaken for them, and the female at all seasons resembles them. The moult happens in the months of September and October; but the period varies as in buntings, and in many other birds: the Minister is

* CHARACTER SPECIFICUS.

EMBERIZA CYANEA. *E. cyanea*, vertice saturatione, remigibus rectricibusque fuscis cœruleo marginatis.—*Lath. Ind. Orn.* i. p. 415. No. 60.

TANAGRA CYANEA.—*Lin. Syst.* i. p. 315.

EMBERIZA CYANEA.—*Gmel. Syst.* i. p. 876.

TANAGRA CAROLINENSIS CÆLULEA.—*Bris.* iii. p. 13. 6.

LE MINISTRE.—*Buff. par Sonn.* xlvii. p. 322.

BLUE LINNET.—*Edw.* t. 273. fig. inf.

INDIGO BUNTING.—*Arct. Zool.* ii. No. 235.—*Lath. Syn.* iii. p. 205. 63.

HABITAT

in Americæ interioribus,—5 pollices longa.

W.

said even to drop its feathers thrice a-year, in which circumstance it also resembles the buntings, the Bengals, and Senegals, &c.

When clothed in its finest attire, it is sky-blue upon a violet ground; the vane of the wings is of a deep blue, with deep brown in the male, and with a greenish tint in the female: which is sufficient to distinguish it in the moulting season from the male, whose plumage is in other respects pretty like that of the female.

The Minister is of the size of a Canary-finch, and, like it, lives upon millet, and the seeds of Canary-grass, &c. *

Catesby figures this bird by the name of the *Blue Linnet* †, and tells us that it is found among the mountains in Carolina, at the distance of one hundred and fifty miles from the sea; that its wings are nearly like the Linnet; that the feathers of its head are of a deeper blue, and those of the under part of the body of a lighter blue; that the quills of the tail are of the same brown with those of the wings, with a light tinge of blue; and lastly, that the bill is blackish

* It also eats fruits; its nest is composed of dry herbs, lined on the inside with down; the bird suspends it between two branches. W.

† The Spaniards call it *Azul Leros*, or the far-fetched bird, as it comes to Mexico from the back parts of Carolina. It is smaller than the goldfinch, and has the song of the Linnet. It appears in the state of New-York about the beginning of summer. It builds in the fork of a branch, with dry yellow grass, and lines the nest with the down of plants.

and the legs brown, and that it weighs only two ounces and a half.

It total length five inches ; its bill five lines ; the *tarsus* eight or nine lines ; the middle toe six lines and a half ; the tail two inches, and extends ten or twelve lines beyond the wings.

THE BENGALS, and the SENEALS.

Les Bengalais, et les Senegalis *, &c.

ALL travellers, and after them the naturalists, have agreed, that these small birds change their colours in moulting. Some even add interesting particulars which we should wish to ascertain ; that the varieties of plumage are confined entirely to five principal colours, black, blue, green, yellow, and red ; and that the Bengals never assume more than one at a time. Yet persons who have had an opportunity of observing these birds in France, and of watching their alterations for a course of years, assert that they have only one annual moult, and never change their colour †. This apparent contradiction may be explained by the difference of climates. That of Asia and Africa, the native regions of these birds, is more powerful than ours, and may have greater influence upon their plumage. But the Bengals are not the only birds which undergo the change ; for, according

* Some of them are termed the Senegal Sparrows.

† M. Mauduyt, well known for his enlightened taste in Natural History, and for his excellent collection of birds, observed a Red Senegal that lived more than a year without changing its plumage. Château says the same of all the Bengals which passed through his hands.

to Merolla, the sparrow in Africa becomes red in the rainy season, and many others are subject to similar alterations. At any rate, an arrangement founded on the colours of the plumage must in the present case be totally uncertain; since, in their native climate, at least, these pretended characters would only be momentary, depending on the season when the birds were killed. On the other hand, their complexion, which fluctuates in Africa and Asia, is invariable in Europe; and it becomes difficult to avoid compounding varieties with species. I shall follow therefore the received opinions, and allot a separate article to each bird which appears obviously distinct, but without pretending to decide the number of real species, which can be only the work of time.

We should be much mistaken if we inferred from the names of these birds, that they are confined to Bengal and Senegal: they are spread through the greatest part of Asia and Africa, and even in many of the adjacent islands, such as those of Madagascar, Bourbon, France, and Java, &c. We may even expect soon to find them multiplied in America; for De Sonnini lately set at liberty a great number of them in the isle of Cayenne, and afterwards saw them cheerful and lively, strongly disposed to naturalize in a foreign soil, and perpetuate their race*.

* A few years ago a Red Senegal was killed at Cayenne in a savanna; it had certainly been carried thither by some navigators.

We may hope that these new colonists, whose plumage is so variable, will also suffer the influence of an American climate, and other varieties will be produced, more fit however to decorate our cabinets, than to enrich Natural History.

The Bengals are familiar and destructive birds : in a word, they are real sparrows. They visit the houses, and even appear in the middle of the villages, and alight in numerous bodies in the fields sowed with millet* ; for they prefer this grain : they are also fond of bathing.

In Senegal, they are caught under a calebash, or large gourd, which is placed upon the ground, and raised a little by a short prop, to which a long cord is fastened ; a few grains of millet serve for the bait. The person who watches their motions without being perceived, draws at the proper time, and secures whatever is under the calebash ; Bengals, Senegals, and small black sparrows, with white bellies, &c.† These birds are transported with difficulty, and can hardly be reconciled to a different climate ; but when once naturalised, they live six or seven

* Travellers inform us, that the negroes eat certain small birds entire with their feathers, and these birds resemble linnets. I imagine that Senegals are of the number, for some Senegals in the time of moulting are like linnets. Besides, it is said that the negroes eat the small birds entire, only to retaliate for the damage done among their crops, these nestling in the midst of the sowed fields.

† I owe the detail of this sport to M. de Sonnini.

years, that is longer than many species proper to the country. They have even bred in Holland, and the same success would undoubtedly be had in colder places; for these birds are very gentle and social, and often caress each other, and above all, the males and the females sit near one another, and sing in concert. It is added, the song of the female is not much inferior to that of the male.

THE BENGAL*.

As the instincts and habits are nearly the same in the whole of this family of birds, I shall content myself, in this and the following articles, to subjoin, to the general account, the delineation of the peculiar features of each. In cases such as the present, where the principal object is to convey ideas of the richness and variety of the plumage, we ought to quit the pen for the pencil; at least, we must imitate the painter in describing not only the forms and lineaments, but in representing the sportive

* CHARACTER SPECIFICUS.

FRINGILLA BENGHALUS. F. dilute cœrulea, capite dorsoque griseis, lateribus capitis purpureis.—*Lath. Ind. Orn.* i. p. 461. No. 91.

FRINGILLA BENGHALUS.—*Gmel. Syst.* i. p. 920.

————— ANGOLENSIS.—*Lin. Syst.* i. p. 323. 31. (*femina.*)

BENGALUS.—*Bris.* iii. p. 203. 60. t. 10. f. 1.

LE BENGALI.—*Buff. Pl. Enl.* 115. f. 1.—*Buff. par Sonn.* xlvii. p. 339.

BLUE-BELLIED FINCH.—*Edw.* t. 131. (*femina.*)—*Lath. Syn.* iii. p. 310. 81.

HABITAT

in Africa.

W.

fluctuation of tints, their changing succession and combination, and above all in expressing action, motion, and life.

The Bengal has on each side of its head a sort of purple crescent which lies under the eyes, and marks the physiognomy of this little bird.

The throat is light blue, and the same colour spreads over all the lower parts of the body, as far as the end of the tail, and even over the upper coverts. All the upper part of the body, including the wings, is of a pleasant grey.

In some individuals, this same grey, somewhat lighter, is the colour of the belly and of the lower coverts of the tail.

In other specimens brought from Abyssinia, this grey had a tinge of red on the belly.

Lastly, in others there is no purple crescent under the eyes : and this variety, known by the name of *Blue Cord**, is more common than that first described. It is said to be a female ; but, as it is so frequent, I should rather suppose that the appearance is owing to the difference of age or climate. Mr. Bruce, who has seen this bird in Abyssinia, positively assures us, that the two red spots are not found in the female, and that all her colours are less brilliant. He adds, that the male has an agreeable warble, but he never remarked that of the female : in both the bill and the legs are reddish.

Edwards has figured and coloured a *Blue*

Cordon Bleu, Knight of the order of the Holy Ghost.

Cord (the *Blue-bellied Finch*), which was brought from the coast of Angola, where the Portuguese called it *Azulinha*. It differed from the preceding; the upper part of the body being of a brown cinereous, slightly tinged with purple, the bill of a deep flesh-colour, and the legs brown. The plumage of the female was of a cinereous brown, with a slight tinge of blue on the lower part of the body only. It would seem to be a variety from the climate, in which neither sex has the red spot under the eyes; and this accounts for the frequency of the *Blue Cords*. It is a very lively bird. Edwards remarks that its bill is like that of the goldfinch. He takes no notice of its song, not having an opportunity of hearing it.

The Bengal is of the size of the *Sizerin*; its total length is four inches nine lines; its bill four lines; its tail two inches, unequally tapering, and consisting of twelve quills; its extent six or seven inches.

THE BROWN BENGAL*.

BROWN is the predominant colour of this bird; but it is more intense under the belly, and mottled on the breast, with whitish in some individuals, and reddish in others. All the males have some of the upper coverts of the wings tipped with a white point, which produces a speckling, confined, however, to that sex; for the females are of an uniform brown without spots. In both the bill is reddish, and the legs of a light yellow.

The Brown Bengal is nearly the size of a wren; its total length is three inches and three-fourths; its bill is four lines; its alar extent about six inches and a half; and its tail rather more than an inch.

* Latham reckons this bird a variety of the Punctured Bengal, *Fringilla Amandava*, Linn. of the following article. Brisson terms it *Bengalus Fuscus*, or Dusky Bengal, and describes it as "having the throat and breast mixed with dirty whitish; the upper coverts of the wings dotted with white; the quills blackish."

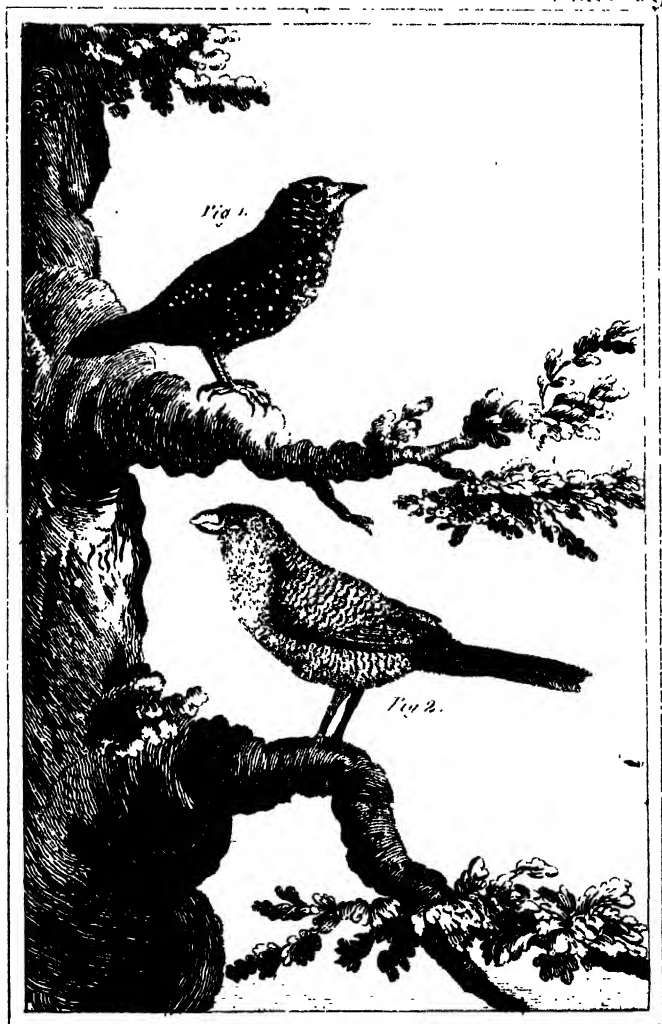


FIG1 THE ANADUVADE FIG2 THE SENEGAL FINCH

THE PUNCTURED BENGAL.

OF all the Bengals which I have seen, this is the most speckled. The whole upper part of the body, the superior coverts of the tail and wings, and the quills of the wings next the back, were sprinkled with points; the wings were brown, and the lateral quills of the tail black, edged with white. Brown mixed with a dull red was spread over all the upper part of the body, including the coverts of the tail, and even under the belly; a red not so dusky extended over all the rest of the under part of the

* CHARACTER SPECIFICUS.

FRINGILLA AMANDAVA. *F. fusca rufescensque albo-punctata, rectricibus nigris apice puncto albo.* — *Lath. Ind. Grn.* i. p. 461. No. 92.

FRINGILLA AMANDAVA. — *Gmel. Syst.* i. p. 905. — *Rat. Syn.* p. 92. — *Will.* p. 194. t. 46. — *Petiv. Gaz.* 53. f. 1.

BENGALUS PUNCTULATUS. — *Bris.* iii. p. 206. *Pl.* t. 10. f. 4.

LE BENGALI PIQUETE. — *Buff. Pl. Écl.* 115. f. 1. — *Buff. par Sonn.* xlvii. p. 345.

AMANDAVADE FINCH. — *Will. (Angl.)* p. 366. t. 46. — *Rat.* t. 366. f. 1. — *Lath. Syn.* iii. p. 311. 82. — *Id. Sup.* p. 194.

HABITAT

in Asia; vix 4 pollices longa.

body, and the sides of the head; the bill was also of a dull red, and the legs of a light yellow.

The female, according to Brisson, is never punctured; it differs also from the male, as its neck, breast, and belly, are of a pale-yellow, and the throat white. According to other observers, who had many opportunities of repeatedly seeing these birds alive, the female was entirely brown, and without spots. Is this a variety of plumage, or a difference of description? for the latter is no small source of confusion in natural history. Willughby saw several of these birds which came from the East Indies, and, as we may expect, found several differences among the individuals; some had black wings; in others the breast was of that colour; in others the breast and belly were blackish; in others the legs whitish; in all the nails were very long, and more incurvated than those of the lark. There is reason to believe that some of these birds were in moult; for I observed one in which the lower belly was blackish, and all the rest of the plumage undecided, as happens when the feathers are dropped, the colours peculiar to the species being impressed, but not well discriminated.

The specimen described by Brisson came from the island of Java. Those observed by Charleton were brought from India; their warble was very pleasant; several of them were kept together in the same cage, because they disliked the society of other birds.

The Speckled Bengal is of a size intermediate to the two preceding: its total length is about four inches; its bill four or five lines; its extent less than six inches; its tail an inch and four lines, unequally tapered, and consisting of twelve quills.

THE SENEGAL

THERE are two principal colours in the plumage of this bird; vinous red on the head, on the throat, and on all the under part of the body as far as the legs, and on the rump; a greenish-brown on the lower belly and on the back, where it receives a slight tinge of red. The wings are brown, the tail blackish, the legs grey, the bill reddish, except the upper and lower ridge, and its edges, which are brown, and form a sort of red-coloured squares.

This bird is somewhat smaller than the Punctured Bengal, but longer shaped. Its total length is four inches and a few lines; its bill four lines; its alar extent six inches and a half; its tail eighteen lines, consisting of twelve quills.

* CHARACTER SPECIFICUS.

FRINGILLA SENEGALA. *F. fusco-ferruginea, vertice sub-
tusque rufa, rostro rubro nigro-striato.*—*Lath. Ind. Orn.* i.
p. 461. No. 93.

FRINGILLA SENEGALA.—*Gmel. Syst.* i. p. 909.

SENEGALUS RUBER.—*Bris.* iii. p. 208. 63. t. 10. f. 2.—
Pl. Enl. 157. f. 1.

LE SENÉGALI.—*Buff. par Sonn.* xlvii. p. 349. pl. 198.
f. 1.

SENEGAL FINCH.—*Lath. Syn.* iii. p. 312. 83.

HABITAT

in Senegala.—4½ pollices longa.

W.

VARIETIES OF THE SENEGAL

I. I have seen one of these birds which had been killed in Cayenne in a savanna, and the only one that has been seen in that country. It probably had been carried thither by some curious person, and had escaped from its cage *. It differed in some respects from the preceding; the coverts of its wings were slightly edged with red; the bill was entirely of that colour; the legs only reddish: and what shows the close analogy between the Bengals and Senegals, the

* Vieillot, who reared several of these Senegals, has made the following remarks upon them:—They are of a mild and sociable disposition; but, when in season, the males become mischievous, and fight very vigorously for the females. The male sings by the side of the female before their union: they both work in common to construct the nest, which they place in the lowest part of the aviary. It is made of hay, moss, and feathers, and the last material is so necessary, that when it becomes scarce, the female glides under the belly of the other birds, and even of the male, and plucks out feather after feather with great address and quickness, till she gets a sufficient quantity. She lays four or five eggs, and divides the fatigue of attending them with the male. The incubation lasts thirteen days, and the little ones are fed with tender seeds and insects, which they are very fond of, and which Vieillot seems to think indispensably necessary to their existence.

W.

breast and sides were sprinkled with some white points,

II. The DANBIK of Mr. Bruce. This bird is very common in Abyssinia, and partakes of the qualities of the two preceding. It is of the same size. The red colour, which is spread over all the anterior part, does not descend to the legs, as in the Senegal, but it extends over the coverts of the wings, where a few white points are perceived likewise on the sides of the breast. The bill is purple, its upper and lower ridge blueish, and the legs cinereous. The male sings agreeably. The female is of an almost uniform brown, and has very little purple.

THE RADIATED SENEGAL *

It is radiated transversely as far as the end of the tail with brown and grey, and the *striae* are the more delicate as they are nearer the head. The general complexion is much lighter on the lower part of the body; it is also shaded with rose-colour, and there is a red oblong spot under

* CHARACTER SPECIFICUS.

LOXIA ASTRILD. *L. grisea fusco-undulata, rostro orbitis pectoreque coccineis.*—*Lath. Ind. Orn.* i. p. 392. No. 75.

LOXIA ASTRILD.—*Gmel. Syst.* i. p. 852.

FRINGILLA UNDULATA.—*Pall. Adumb.* 142.

SENEGALUS STRIATUS.—*Bris.* iii. p. 210. 64. t. 10. f. 5.

LE SENEGALI RAYE'.—*Buff. Pl. Enl.* 157. f. 2.—*Buff. par Sonn.* xxxvii. p. 354.

WAXBILL GROSBILL.—*Lath. Syn.* iii. p. 152. 71.—*Edw.* t. 179. 354.

HABITAT

in Canariis, America, Africa.

W.

† It is called Waxbill on account of the colour of its bill. Some have confounded it with the *La-ki* of China, to which many marvellous properties are imputed; but that bird is as large as a blackbird, and bears no relation to the Senegals.

the belly; the lower coverts of the tail are black, without any rays, but some traces can be perceived on the wing-quills, which are brown; the bill is red, and there is a stripe, or rather a bar, of that colour on the eyes.

I have been assured that the female is exactly like the male; but the differences which I have myself observed in many individuals, and those which have been noticed by others, create some doubts of the perfect similarity of the sexes. I have seen several which came from the Cape, in some of which the upper part of the body was more or less of a deep brown, and the under more or less reddish; in others the upper part of the head had no rays. In that figured by Edwards, Pl. 179, the rays consisted of two browns; and the coverts below the tail were not black, which is also the case with that we have represented No. 157, fig. 2. Lastly, in the specimen delineated at the top of Pl. 354, the rays of the under part of the body are spread upon a brown ground; and not only the lower coverts of the tail are black as in that described by Brisson, but the lower belly is of the same colour.

The subject observed by Brisson came from Senegal, the two which Edwards examined were brought from the East Indies; and most of those which I have seen were brought from the Cape of Good Hope. Among so many differences of the plumage remarked between

there, some must depend upon the distinction of sex.

The average length of these birds is about four inches and a half; the bill is three or four lines; the alar extent six inches, and the tail two inches, unequally tapered, and composed of twelve quills.

THE SEREVAN*.

BROWN is the predominant colour of the head, the back, the wings, and the quills of the tail; the under part of the body is light grey, sometimes a light fulvous, but always tinged with reddish; the rump is red, and also the bill; the legs are red; sometimes the base of the bill is edged with black, and the rump sprinkled with white points, and so are the coverts of the wings. Such was the Serevan sent from the Isle of France by Sonnerat, under the name of *Bengal*.

That called *Serevan* by Commerson had all the under part of the body of a light fulvous; its legs were yellowish; and neither its bill nor

* CHARACTER SPECIFICUS.

LOXIA ASTRILD. L. cinereo-fusca, subtus albida, uropygio crissoque coccineis.—*Lath. Ind. Orn.* i. p. 392. No. 75.
Var. β .

LE SEREVAN.—*Buff. par Sonn.* xlvii. p. 357.

LE MOINEAU du SENEGAL.—*Pl. Enl.* 230. f. 3.

RED-RUMPED GROSBK.—*Lath. Syn.* iii. p. 153.—*Brown.*
Ill. t. 29.

HABITAT

in Benguela, Senegala,

W.

its rump was red, and not a single speck could be seen on it. Probably it was young, or was a female.

Other birds closely related to this, and sent by Commerson, under the name of *Cape Bengals*, had a more distinct red tinge before the neck, and on the breast; in general their tail was longer in proportion.

They are all nearly of the size of the Bengals and Senegals.

THE LITTLE SENEGAL SPARROW.

THE bill and legs are red, and there is a streak of the same colour on the eyes; the throat, and the sides of the neck, are of a blueish white; all the rest of the under part of the body is white, mixed with rose-colour of greater or less intensity; the rump of the same; the rest of the under part of the body blue; the upper part of the head is of a lighter blue; the wings, and the scapular feathers, brown; the tail blackish.

This little Sparrow is nearly the size of the preceding.



THE CUBA FINCH

THE MAIA

THESE are very destructive little birds. They assemble in numerous flocks to feed among the crops of rice; they consume much, and waste more; they prefer the countries where that grain is cultivated, and might claim with the *Paddas* the appellation of *Rice-birds*: however, I retain their proper name, by which, as Fernandez informs us, they are known in their native climate. The same author says, that their flesh is good, and easy to digest.

In the male, the head, throat, and all the under part of the body, are blackish; the upper of a purple chesnut, brightest on the rump; there is also on the breast a broad cincture of the

* CHARACTER SPECIFICUS.

FRINGILLA MAIA. F. purpurascens, fascia pectorali saturiore. — *Lath. Ind. Orn.* i. p. 462. No. 96.

FRINGILLA MAIA. — *Gmel. Syst.* i. p. 924. — *Bris.* iii. p. 214. 66. t. 7. f. 3. (femina.) — *Rau Syn.* p. 155. — *Will.* p. 297. — *Id. (Angl.)* p. 386.

LE MAIA. — *Buff. par Sonn.* xvii. p. 360. pl. 106. f. 2. 3.

CUBA FINCH. — *Lath. Syn.* iii. p. 315. 86.

HABITAT

in insula Cuba et India. — $3\frac{1}{2}$ pollices longa.

W.

same colour ; the bill is grey, and the legs lead-coloured.

The female is fulvous above, and dirty white below ; its throat is purple-chesnut, and on each side of the breast is a spot of the same colour, corresponding to the cincture of the male ; its bill is whitish, and its legs are grey.

Fernandez mentions as a *wonder*, that the stomach of the Maia is behind its neck ; but if he had noticed the small birds that are fed, he would have perceived that this wonder is very common ; and that as the craw is filled, it is pushed to the place where it meets with least resistance, often on the side of the neck, and sometimes behind it : lastly, he would have seen that the craw is not the stomach.—Nature is always admirable, but we ought to know how to admire her *.

* Maia is the Mexican name for this bird.

THE MAIAN *.

CHINA is not the only country from which this bird is brought; that engraved by Edwards came from Malacca, and in all probability it might be found in the intermediate countries. There is reason, however, to doubt whether it exists in America, and whether so small a bird could traverse the immense oceans which disjoin the continents; at least it differs so much from the Maias, the American birds which it the nearest approaches, as to require a distinct name. In fact, its properties are not the same; for though it be rather larger, it has its wings and tail somewhat shorter, and its bill as short;

* CHARACTER SPECIFICUS.

LOXIA MAIA. L. fusca, capite albo.—*Lath. Ind. Orn.* i. p. 391. No. 72.

LOXIA MAIA.—*Gmel. Syst.* i. p. 849.—*Bris.* iii. p. 212. 65. t. 9. f. 2.—*Pl. Enl.* 109. f. 1.

LE MAIAN.—*Buff. par Sonn.* xlvii. p. 362.

MALACCA GROSBEAK.—*Edw.* t. 306. f. 1.—*Osb. Voy.* ii. p. 328.

WHITE-HEADED GROSBEAK.—*Lath. Syn.* iii. p. 151. 68.

HABITAT

in Malacca, China.—4 pollices longa.

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M

W.

besides, its plumage is different, and much inferior in lustre.

In the Maian, all the upper part of the body is a reddish chesnut; the breast, and all the under part of the body, is of an almost uniform blackish, not quite so deep beneath the tail; the bill is of a lead-colour; a sort of light grey cowl covers the head, and falls below the neck; the lower coverts of the wings are of the same light grey, and the legs are flesh-coloured.

The Maian of Brisson differs from this; its breast being of a light brown, some of the first feathers of the wings being edged with white, the bill and legs being grey, &c. These differences are too striking to be imputed to the variety of description, especially if we consider the scrupulous accuracy of the describers.



THE CHAFFINCH

THE CHAFFINCH*.

THIS bird has great power in its bill, with which it nips so bitterly as to draw blood. Hence, according to the several authors, the French name of *Pinson* is derived (from *pincer*, to pinch). But as the disposition to snap is not

* CHARACTER SPECIFICUS.

FRINGILLA CŒLEBS. F. artubus nigris, remigibus utrinque albis, tribus primis immaculatis, rectricibus duabus oblique albis.—*Lath. Ind. Orn.* i. p. 437, No. 12.

FRINGILLA CŒLEBS.—*Gmel. Syst.* i. p. 901.—*Raii Syn.* p. 89. 16. A.—*Will.* p. 186. t. 45. f. 4.—*Bris.* iii. p. 198. 36.

LE PINCON.—*Buff. Pl. Enl.* 54. f. 1.—*Buff. par Sonn.* xviii. p. 893. pl. 109. f. 1.

CHAFFINCH.—*Br. Zool.* i. No. 125.—*Arct. Zool.* ii. p. 381. F.—*Lath. Syn.* iii. p. 257. 10.—*Id. Sup.* p. 165.—*Bew. Birds.* i. p. 164.

HABITAT

in Europe, Africa; in Anglia frequent et constant; non migratoria. W.

† Aristotle calls the Chaffinch Σριζα: the Italian names are, *Franguello*, *Frangueggio*, and *Franguello*: in German, *Finck*, *Roth Finck*, *Winche*: in Polish, *Ślownik*: in Swedish, *Fink*, *Bofincka*: in Bohemian, *Penkewa*.

peculiar to the Chaffinch, but common to other birds, to many different sorts of quadrupeds; millepedes, &c. I should rather adopt the opinion of Frisch, who supposes this word *Pinson* to come from *Pincio*, latinized for the German *Pinck*, which seems imitative of the note of the bird.

The Chaffinches do not all migrate in the autumn; a considerable number remains with us during the winter. These resort to our dwellings, and even visit our court-yards to obtain an easier subsistence; they are little parasites, who seek to live at our expence, without contributing to our pleasures: for in that season they never sing, except in fine days, which seldom then occur. During the rest of the time they lodge concealed in close hedges, in oaks that have not shed all their leaves, in evergreens, and even in holes of rocks, where they are sometimes found dead when the weather is excessively severe. Those which migrate into other climates assemble often in prodigious flocks; but whither do they retire? Frisch supposes that their retreat lies in the northern regions: his reasons are—1. That on their return they bring with them white Chaffinches, which are hardly to be met with, except in those climates; 2. That they never lead young ones in their train, which would be the case, if, during their absence, they lived in a warm country, where they might be disposed to breed; 3. That they can bear cold, except snow, which, cover-

ing the fields, deprives them in part of their subsistence*.

These arguments imply therefore, that there is a country in the north where the earth is not robbed in the winter; and such is said to be the deserts of Tartary, where the snow falls indeed, but is immediately swept away by the violence of the winds, and extensive tracts laid bare.

A very remarkable circumstance in the migration of the Chaffinches, is what Gesner mentions of those of Switzerland, and Linnæus of those of Sweden: that only the females remove to other climates, and the males reside in the country during the winter†. But have not

* Frisch.—Aldrovandus says, that in Italy, when there is much snow and the frost very intense, the Chaffinches cannot fly, and are caught by the hand; but this weakness may arise from inanition, and that again from the abundance of snow. Olini alleges, that in the same country the Chaffinches retire to the hilly tracts during the summer. Hebert has seen many of them in that season among the highest mountains of Bugey, where they were as common as in the plains, and where they certainly do not remain through the winter.

† “They quit Switzerland in the winter, particularly the females; for several males are often seen, with not one female.”—GESNER. Linnæus positively asserts, that the female Chaffinches leave Sweden in flocks about the month of September, that they direct their course to Holland, and return in the spring to join their males which have wintered in Sweden.

This singular remark is corroborated by Mr. White, who found that the vast flocks of Chaffinches which appear in his neighbourhood about Christmas, are almost entirely hens.

these able naturalists been misled by the persons who informed them, and those deceived by some periodical change in the plumage of the females, occasioned by cold, or other accidents? This explanation seems more suited to Nature's general plan, and more conformable to analogy, than to suppose that, at a certain fixed term, the females separate from mere caprice, and travel into a distant climate, when their native soil can afford them subsistence.

The migrations vary in different countries. Aldrovandus assures us, that the Chaffinches seldom breed near Bologna, but almost all depart about the end of winter, and return the succeeding autumn. On the other hand, I find from Willughby, that they continue the whole year in England, and that few birds are so common.

They are spread through the whole of Europe, from the shores of the Baltic and Sweden, where they are frequent, and nestle, to the Straits of Gibraltar, and even the coasts of Africa*.

The Chaffinch is a lively bird, and perpetually in motion; and this circumstance, joined to the

Yet, as he seems not to have dissected any, he might have been deceived by the change of plumage, which is extremely probable.

* "Being stationed on the coasts of Africa, we were very often visited on board by Chaffinches. We cruised between the thirtieth to the thirty-fifth degree of latitude:—I have even heard it affirmed, that they are found at the Cape of Good Hope."—Note of Viscount Querhoent.

sprightliness of its song, has given rise to the proverbial saying, *gay as a Chaffinch*. It begins to chant very early in the spring, and several days before the nightingale, and gives over about the summer solstice. Its song has merited an analysis: and it is distinguished into the prelude, the quavering, and the close*; names have been appropriated to the different parts; and the greatest connoisseurs in these little matters agree, that the concluding part is the most agreeable†. Some find its music too strong, or too grating‡; but this must be imputed to the excessive delicacy of our organs, or rather it is because the sound is too near, and increased by the confused echo of our apartments: Nature has destined the Chaffinches to be songsters of the woods; let us repair then to the grove, to taste and enjoy the beauties of their music.

If a young Chaffinch taken from the nest be educated under a Canary, a nightingale, &c. it will have the song of its instructors: more than one instance§ has been known of this; but they

* The prelude is, according to Frisch, composed of three similar notes or strokes; the quaver, of seven different notes descending; and the close, of two notes. Lottinger has also made some observations on this subject. "In anger, the air of the Chaffinch is simple and shrill; in fear, plaintive, short, and often repeated; in joy, it is lively, and ends with a sort of burden."

† In German, this is called *Reiterzu*; in French, *Bouteselle*.

‡ *Mordant*, biting.

§ This facility in learning the songs of other birds accounts

have never been brought to whistle our tunes — they never depart, so wide from nature.

The Chaffinches, beside their ordinary warble, have a certain tremulous expression of love, which they can utter in the spring, and also another cry which is unpleasant, and said to portend rain *. It has been remarked too, that they never sing better or longer than when, from some accident, they have lost their sight †, and no sooner was this observation made, than the art was discovered of rendering them blind. The lower eyelid is connected to the upper by a sort of artificial cicatrix made by touching slightly and repeatedly the edges with a wire heated red-hot in the fire, and taking care not to hurt the ball of the eye. They must be prepared for this singular operation by confining them for ten or twelve days to the cage, and then keeping them shut up with the cage in a chest night and day, to accustom them to feed in the dark ‡. These blind Chaffinches are in-

for the diversity observed in the warble of the Chaffinches. In the Netherlands, five or six kinds of Chaffinches are distinguished by the various length of their airs.

* In the German language a word is appropriated to denote this: it is *Schircken*.

† They are liable to this accident, especially if kept between two windows which face the south.

‡ Gesner asserts, that if the Chaffinches be kept thus shut up through the whole summer, and not let out of their prison till the beginning of autumn, they sing during the latter season, which would otherwise not happen. Darkness rendered them dumb, but return of light is to them a second spring.

defatigable singers, and they are preferred as calls to decoy wild Chaffinches into the snares: these are also caught with bird-lime and with different kinds of nets, and among others those for larks, but the meshes must be smaller in proportion to the size of the bird. *

The time for the sport is, when the Chaffinches fly in numerous flocks, either in autumn before their departure, or in spring on their return. We must, as much as possible, choose calm weather, for they keep lower and hear better the call. They do not easily bend to captivity; they scarcely will eat any thing for the first two or three days; they strike their bill continually against the sticks of the cage, and often languish to death *.

These birds construct their nest very round and compact, and place it in the closest trees or bushes; sometimes they build it even in our gardens upon the fruit-trees, and conceal it so artfully that we can hardly perceive it, though quite nigh. It is composed of white moss and small roots on the outside, and lined with wool, hairs, spider's-webs, and feathers. The female lays five or six eggs, which are reddish-grey, sprinkled with blackish spots, more frequent near the large end. The male never deserts his mate in the time of hatching; he sits at night always at hand; and if during the day he re-

* Those caught with lime-twigs often die the instant they are taken.

move to a short distance, it is only to procure food. Jealousy has perhaps some share in this excessive assiduity; for these birds are of an amorous complexion: when two males meet in an orchard in the spring, they fight obstinately, till one of them is vanquished and expelled: and the combat is still more fierce if they be lodged in the same volery with only a single female.

The parents feed their brood with caterpillars and insects: they also eat these themselves; but their ordinary subsistence is small seeds, those of the white-thorn, of poppy, of burdock, of the rose-tree, and especially beech-mast, rape and hemp-seed. They feed also upon wheat and even oats, and are expert in shelling the grain to obtain the mealy subsistence. Though rather obstinate, they can in time be instructed like goldfinches to perform several little feats; they learn to employ their wings and feet to draw up the cup when they want to eat or drink.

The Chaffinch sits oftener squatted than perched; it never walks hopping, but trips lightly along the ground, and is constantly busy in picking up something: its flight is unequal; but when its nest is attacked, it hovers above screaming.

This bird is somewhat smaller than our sparrow, and is too well known to require a minute description. The sides of the head, the fore-part of the neck, the breast, and the loins, are of

a wine-colour: the upper part of the head and of the body chesnut; the rump olive, and a white spot on the wing. In the female the bill is more slender, and the colours less bright than in the male; but in both sexes the plumage is very subject to vary. I have seen a hen Chaffinch alive, caught on her eggs the 7th of May, which differed from that described by Brisson: the upper part of its head and back was of a brown olive, a sort of grey collar surrounded the neck behind, the belly and the lower coverts of the tail were white, &c. And of the males, some have the upper part of the head and neck cinereous, and others of a brown chesnut; in some the quills of the tail nearest the two middle ones are edged with white, and in others they are entirely black. Does age occasion these slight differences?

A young Chaffinch was taken from its mother, when its tail-quills were six lines in length, and the under part of its body was like that of its mother; and the upper part of a brown cinereous; the rump olive, the wings were already marked with white rays: but the edges of the superior mandible were not yet scalloped near the point, as in the adult males. This circumstance would lead me to suppose that the scalloping which occurs in many species is not the primary organization, but is afterwards produced by the continual pressure of the end of the lower mandible, which is rather shorter, against the sides of the upper.

All the Chaffinches have the tail forked, composed of twelve quills; the ground colour of their plumage is dull cinereous, and the flesh is not good to eat. The period of their life is seven or eight years.

Total length six and one-third inches; the bill six lines; the alar extent near ten inches; the tail two and two-thirds, and extends about sixteen lines beyond the wings.

VARIETIES OF THE CHAFFINCH*.

BESIDES the frequent variations which may be perceived in Chaffinches bred in the same country, others are observed in different climates, which are more permanent, and which authors have judged worthy of description. The first three have been found in Sweden, and the remaining two in Silesia.

I. The CHAFFINCH † with black wings and tail. The wings are indeed entirely black, but the outer quills of the tail, and the one next to it, are edged with white on the outside from the middle. This bird lodges among trees, says Linnæus.

II. The BROWN CHAFFINCH ‡. It is distinguished by its brown colour and its yellowish bill, but the brown is not uniform, it is lighter on the anterior part, and has a shade of the cinereous and blackish on the posterior part. This variety has black wings like the preceding; the legs are of the same colour, and the tail

* This Finch is termed *Fringilla Sylvia*, in the Fauna Suecica.

† *Fringilla Flavirostris Fusca*.—Linn.

‡ *Fringilla Flammula Fusca*.—Linn.

forked. The Swedes call it *Riska*, according to Linnæus*.

III. The CRESTED BROWN CHAFFINCH. It is fire-coloured, and this character distinguishes it from the preceding variety. Linnæus said in 1746, that it was found on the northern part of Sweden, but twelve years afterwards he recognised it to be the Black Linnet of Klein, and asserted that it inhabited every part of Europe.

IV. The WHITE CHAFFINCH †. It is very rare according to Schwenckfeld, and differs only in regard to colour from the Common Chaffinch. Gesner affirms, that a Chaffinch was seen whose plumage was entirely white.

V. The COLLARED CHAFFINCH ‡. The crown of its head is white, and it has a collar of the same colour;—this bird was caught in the woods near Kotzna.

* The Brown Chaffinch is a distinct species inhabiting the northern countries of Europe. It is found in Sweden, Norway, Siberia, but prefers the countries watered by the Jenisy, where it approaches the habitations of the Tartars, and is by no means wild. In winter it descends to the southward.

W.

† *Fringilla Candida*.—Schwenckfeld,

‡ *Fringilla Torquata*,—Schwenckfeld.

THE BRAMBLING *.

PERHAPS this bird, which in general is supposed to be the Mountain Finch, or *Orospiza* of Aristotle, is in fact his *Spiza*, or principal Finch; or our Common Finch or Chaffinch is his Mountain Finch. The following are the reasons which incline me to this opinion. The ancients never made complete descriptions, but seized a prominent feature of an animal, whether in its exterior appearance or in its habits, and marked it by an epithet. The *Orospiza*, says Aristotle †,

* CHARACTER SPECIFICUS.

FRINGILLA MONTIFRINGILLA. F. nigra pennis rufo marginatis, subtus uropygioque alba, jugulo pectoreque rufescentibus, rectricibus lateralibus, nigricantibus, extus albo marginatis.—*Lath. Ind. Orn.* i. p. 439. No. 17.

FRINGILLA MONTIFRINGILLA.—*Gmel. Syst.* i. p. 902.—*Rall Syn.* p. 88.—*Will.* p. 187. t. 45.—*Bris.* iii. p. 155.

LE PINCON d'ARDENNES.—*Buff. Pl. Enl.* 54. f. 2.—*Buff. par Sonn.* xlviii. p. 5. pl. 109. f. 1.

BRAMBLING, or MOUNTAIN FINCH.—*Br. Zool.* No. 126.—*Art. Zool.* ii. p. 381. E.—*Will. (Angl.)* p. 254. t. 45.—*Lath. Syn.* iii. p. 261. 13.—*Bew. Birds,* i. p. 167.

HABITAT

in Europæ et Sibiriz sylvis.—6½ pollices longa.

W.

† It is supposed to be Aristotle's *Oρoσπιζα*, or Mountain

is like the *Spiza*; it is somewhat smaller; its neck is blue; and lastly, it inhabits the mountains: but all these are properties of the chaffinch, and some of them belong to it exclusively.

1. It is much like the Mountain Finch or Brambling, as will appear from the comparison; and all systematic writers have classed them together.

2. The chaffinch is rather smaller than the Brambling, according to naturalists, and which agrees with my own observations.

3. In the chaffinch, the upper parts of the head and of the neck are of a blueish cinereous; whereas in the Brambling these are varied with glossy black and yellowish grey.

4. We have already remarked, on the authority of Olina, that in Italy the chaffinch retires in summer to breed among the mountains; and, as the climate of Greece is little different from that of Italy, we may infer from analogy, it will there also have the same habits *.

Finch, whose female was termed χρυσόμυς, or Golden Mirted. In German, *Rowert*, *Schnec-Finck*, *Winter-Finck*: in Swiss, *Wald-Finck*, *Thann-Finck*: in Swedish, *Norrquint*.

* Frisch asserts that the Bramblings come from the mountains in autumn, and when they return, they direct their course to the north. The Marquis de Piolenc, who has given me several notes on these birds, assures me that they leave the mountains of Savoy and Dauphiny in October, and do not return till February. These periods correspond well with the time when they are seen to pass and repass in Burgundy. Perhaps both these species resemble each other in preferring mountains.

5. Lastly, the *Spiza* of Aristotle appears to resort, according to that philosopher, to the warm regions during summer, and to prefer the cold climates in winter *. But this agrees better with the Brambling than with the chaffinches, since of these a great proportion never migrate, while the former not only are birds of passage, but generally arrive in the depth of winter † in the different countries which they visit. This is evinced by experience, and is confirmed by the appellations of Winter Finch, and Snow Finch, which they have received in various places.

From all these considerations, it seems probable that the Brambling is the *Spiza* of Aristotle, and the chaffinch his *Orospiza*.

The Bramblings do not breed in our climates; they arrive in different years in immense flocks. The time of their passage is the autumn and winter: often they retire in eight or ten days, and sometimes they remain till the spring. During their stay, they consort with the chaffinches, and, like these, seek concealment in the thick foliage. Vast bodies of them appeared in Burgundy in the winter of 1774, and others in still more numerous flocks were seen in the

* Aldrovandus positively asserts, that this takes place in the neighbourhood of Bologna: Lottinger informs me, that some appear in Lorraine from the end of August, but that large flocks arrive towards the end of October, and even later.

† Hist. Anim. lib. viii. 3.

country of Wirtemberg about the end of December 1775, which every evening reposed in a valley adjoining to the banks of the Rhine*, and commenced their flight with the earliest dawn: the ground was covered with their excrements†. The same occurrence was observed in the year 1735 and in 1757‡. Never, perhaps, were so many of these birds seen in Lorraine, as in the winter of 1765: more than six hundred dozen, says Lottinger, were killed every night in the pine-forests, which are four or five leagues from Sarbourg. The people were not at the pains to shoot them, they knocked them down, with

* Lottinger asserts, perhaps too generally, that in the daytime they spread through the forests of the plain, and in the evening retire to the mountains. This conduct is not invariable, but seems to be affected by situation and circumstances.

A flock of more than three hundred were seen this year in our neighbourhood; it halted three or four days in the same place, which is mountainous. They always alighted on the same chesnut tree, and when fired at, rose all at once, and constantly directed their course to the north and north-east.

—*Note of the Marquis Piolenc.*

† These myriads of Bramblings passed their nights near the convent of Herrenalt. They came every afternoon, about four o'clock, from the banks of the Rhine, and crossed the valley, making a noise like a storm. These numerous winged legions darkened the air in their passage, which lasted an hour: they settled in a forest near the convent, where they occupied several acres of land, which was found covered with their dung. In the morning they retired, in the finest order, from whence they came, which was, to all appearance, from the woods that border the Rhine. W.

‡ Gazette d'Agriculture, Ann. 1776.

switches: and though this massacre lasted the whole winter, the body was scarce perceptibly thinned. Willughby tells us, that many are seen in the neighbourhood of Venice, no doubt in the time of passage; but no where do they appear so regularly as in the forests of Weissemburg, which are plentifully stocked with beeches, and consequently afford abundance of mast, of which they are so fond, that they eat it day and night; they live also on all sorts of small seeds. I suppose that these birds remain in their native climate as long as they can procure the proper food, and quit it only when scarcity obliges them to shift their quarters; at least, it is certain that the plenty of their favourite seeds is not sufficient to draw them to a country, and even to one with which they are acquainted: for in 1774, when there was abundance of beech-mast in Lorraine, the Bramblings did not appear, but took a different route: however, in the following year, several flocks were seen, though there was a scarcity of mast*. When they arrive among us, they are not shy, but allow a person to go very near them. They fly close together, and alight and rise in the same compact body; and for this reason twelve or fifteen of them may be killed at one shot.

When they feed in the fields, they are observed to perform the same manœuvres as the

* I owe these facts to Mr. Lottinger.

pigeons; a few always precede, and are followed by the rest of the flock.

These birds, we see, are known and spread through all parts of Europe; but they are not confined to our quarter of the globe. Edwards observed some that were brought from Hudson's-bay, under the name of *Snow-birds*; and people who traded to that country assured him that they were the first which appeared every year on the return of spring, before even the snows were melted.

The flesh of the Bramblings, though somewhat bitter, is good to eat, and undoubtedly better than that of the chaffinch. Their plumage is also more varied, more beautiful, and more glossy; but their song is far from being so pleasant, and it has been compared to the screech of the owl* and the mewing of the cat †. They have two cries; the one a sort of chirping, and the other which they utter when they sit on the ground resembles that of the stone-chat, but is neither so strong nor so clear. Though by nature endowed with so few talents, these birds are susceptible of instruction; and when kept near another whose warble is more pleasant, their song gradually mellows, and comes to resemble that which they hear ‡. But to have a just idea of their music, we must listen to them in the time of hatching; it is then, when

* Belon.

† Olin.

‡ Olin.

chanting the hymn of love, that birds display their true warble.

A fowler, who had travelled, assured me that these birds are bred in Luxemburg; that they make their nests in the most branchy firs at a considerable height; that they begin about the end of April; that they employ the long moss of firs for the outside, and hair, wool, and feathers for the lining; that the female lays four or five yellowish spotted eggs: and that they begin to flutter from branch to branch about the end of May.

The Brambling is, according to Belon, a courageous bird, and defends itself with its bill to the last gasp. All agree that it is of a more easy temper than the chaffinch, and more readily ensnared. Many of them are killed in certain fowling-matches which are frequent in the country of Weissemburg, and which deserve to be related. The fowlers assemble at the little town of Bergzabern; on the evening of the day appointed, they dispatch scouts to remark the trees on which the Bramblings commonly pass the night, and which are generally the pitch-pines, and other ever-greens; the scouts, after their return, serve as guides for the company, which set out in the evening with torches and shooting trunks*. The birds are dazzled with the glare, and killed by pellets of dry earth discharged from the trunks. They shoot

* *Sarbacanes.*

very near, lest they should miss; for if a bird chanced to be wounded, its cries would scare away the flock.

The principal food of these birds, when kept in a cage, is panic, hemp-seed, and beech-mast. Olin says that they live four or five years.

Their plumage varies: in some males the throat is black; in others, the head is entirely white, and the colours in general lighter*. Frisch remarks, that the young males are not so black at their arrival, and that the inferior coverts of their wings are not so vivid a yellow as at their departure. Perhaps a more advanced age occasions still other differences between the sexes, and may account for the diversity of descriptions.

The Brambling which I observed weighed an ounce; its face was black; the upper part of its head, neck, and back, varied with yellowish-grey, and glossy black; the throat, the fore part of the neck, the breast and the rump, rust-coloured; the small coverts of the base of the wing yellow-orange; the others formed two transverse rays of a yellowish-white, separated by a broader black bar; all the quills of the wing, except the first three, had on their outer edge, where the great coverts terminate, a white spot, about five lines long; the succession of these spots formed a third white ray, which was parallel to the two others when the wing was

* Aldrovandus.

expanded, but when the wing was closed, it appeared only like an oblong spot almost parallel to the side of the quills; lastly, these quills were of an exceedingly fine black, edged with white. The small inferior coverts of the wings next the body were distinguished by their beautiful yellow colour. The quills of the tail were black, edged with white or whitish; the tail forked; the flanks streaked with black; the legs of a brown olive; the nails slightly incurvated, the hind one the strongest of all; the edges of the upper mandible scalloped near the point, the edges of the lower one fitted into the upper; and the tongue parted at the tip into several delicate filaments.

The intestinal tube was fourteen inches long; the gizzard was muscular, coated with a cartilaginous membrane slightly adhering, and preceded by a dilatation of the *œsophagus*, and also by a craw of five or six lines diameter: the whole was filled with small seeds without a single pebble. I did not see a *cæcum*, or gall-bladder.

The female has not the orange spot at the base of the bill, nor the fine yellow colour of the lower coverts; the throat is of a lighter rufous; and it has a cinerous cast on the crown of the head, and behind the neck.

Total length six inches and one-fourth; bill six lines and a half; alar extent ten inches; tail two inches and one-third, and reaches about fifteen lines beyond the wings.

THE LAPLAND FINCH

THIS bird is the largest of the European Finches. Klein says that it is equal in bulk to the lark. It is found in Lapland, near Torneo. Its head is blackish, varied with a rusty-white colour, and marked on each side with a white ray, which rises from the eye, and descends along the neck; the neck, throat, and breast, are of a light rufous colour; the belly and the hind part white; the upper part of the body rusty, variegated with brown; the wings black, edged with pale yellow and greenish, and crossed with a white ray; the tail forked, composed of

* CHARACTER SPECIFICUS.

FRINGILLA LAPPONICA. F. capite nigro, corpore griseo nigroque, superciliis albis, rectricibus extimis macula alba cuneiformi.—*Lath. Ind. Orn.* i. p. 440. No. 18.

FRINGILLA LAPPONICA.—*Gmel. Syst.* i. p. 900.

FRINGILLA MONTANA.—*Bris.* iii. p. 160. 38.

————— CALCARATA.—*Pall. It.* ii. p. 710. 20. t. E.

LE GRAND MONTAIN.—*Buff. par Sonn.* xlviii. p. 22.

GREATER BRAMBLING.—*Alb.* iii. t. 63.

LAPLAND FINCH.—*Arct. Zool.* ii. No. 259.—*Lath. Syn.* iii. p. 263. 14.

HABITAT

in Europa, America.

twelve quills that are almost black, and edged with yellowish; the bill horn-coloured, and deeper near the point; the legs black.

Total length six inches and a half; bill seven lines, and the legs and the mid-toe the same; alar extent eleven inches and a half; tail two inches and a half; and stretches ten lines beyond the wings *.

* It inhabits Greenland in the summer, lays in June, and soon retires. It is found also in Lapland, and in the northern parts of Siberia. It appears in November at Hudson's Bay, where it passes the winter among the juniper bushes. It sings nearly like the linnæa, but has a loftier and better supported flight. It trips on the ground like a lark, picking up seeds.

THE SNOW FINCH *.

THIS appellation is probably founded on the white colour of the throat, breast, and all the under part of this bird; and also on the circumstances of its inhabiting the cold countries, and scarcely appearing in temperate climates, except in winter when the ground is covered with snow. Its wings and tail are black and white; the head, and upper part of the neck, cinereous, in which it resembles the chaffinch; the upper part of the body of a grey-brown, varied with lighter colour; the superior coverts of the tail entirely black, and also the bill and legs.

* CHARACTER SPECIFICUS.

FRINGILLA NIVALIS. F. nigra subtus nivea, remigibus secundariis rectricibusque albis.—*Lath. Ind. Orn.* i. p. 440. No. 19.

FRINGILLA NIVALIS.—*Gmel. Syst.* i. p. 911.—*Bris.* iii. p. 162. 39. t. 15. f. 1.

LE PINÇON de NEIGE, ou NIVEROLLE.—*Buff. par Sonn.* xlviii. p. 26.

SNOW FINCH.—*Lath. Syn.* iii. p. 264. 15.

HABITAT

in Europa, Asia.—7 pollices longa.

W.

Total length seven inches; the Bill seven lines; the legs nine lines and a half; alar extent twelve inches; the tail two inches and seven lines, and stretches eight or nine lines beyond the wings.

THE BROWN GROSBEAK*.

THIS is the smallest of all the finches. Its throat, breast, and all the upper part of the body, of an orange-reddish; the head, and all the under part of the body, is of a deep brown; but the feathers are edged with a lighter shade, which produces a mixed colour; lastly, the bill is white, and the legs brown.

Edwards, to whom we are indebted for our knowledge of this bird, could not discover from what country it came. Linnæus says that it is found in India.

* CHARACTER SPECIFICUS.

LOXIA BICOLOR. L. fusca, subtus rubra.—*Lath. Ind. Orn.* i. p. 395. No. 89.

LOXIA BICOLOR.—*Gmel. Syst.* i. p. 865.

FRINGILLA RUBRA MINOR.—*Bris.* iii. p. 164. 40.

LE BRUNOR †.—*Buff. par Sonn.* xlviii. p. 28.

BOUVREUIL à VENTRE ROUX de CAYENNE.—*Pl. Enl.* 319. 2.

LITTLE BROWN BULFINCH.—*Edw.* t. 83. f. 1.

ORANGE-BELLIED GROSBEAK.—*Lath. Syn.* iii. p. 157. 82.

HABITAT

in India.

W.

† i. e. *Lrun-noir*, or brown-black.

Total length, three inches and one-fourth; bill, three lines and a half; legs, four lines and a half; tail, one inch, and extends six lines beyond the wings.

THE COWPEN FINCH*.

THE prevailing colour of this bird is brown; but it is lighter under the body. Catesby tells us, that it is an inhabitant of Virginia, and that it associates with the red-wing orioles and the purple grakles: he adds, that it loves to haunt the cow-pens, and hence its name; and that it is never seen in summer.

Total length, six inches and three-fourths, the bill seven lines, the tail two inches and a half, and extends fifteen lines beyond the wings: the legs eleven lines, the mid-toe the same †.

* CHARACTER SPECIFICUS.

FRINGILLA PECORIS. F. fusca subtus dilutior, cauda subforcipata.—*Lath. Ind. Orn.* i. p. 443. No. 28.

FRINGILLA PECORIS.—*Gmel. Syst.* i. p. 910.

———— VIRGINIANA.—*Bris.* iii. p. 165. 41.

LE BRUNET.—*Buff. par Sonn.* xlviii. p. 31.

COWPEN FINCH.—*Arct. Zool.* ii. No. 241.—*Cat. Car.* i. t. 34.—*Lath. Syn.* iii. p. 260. 29.—*Id. Sup.* p. 165.

HABITAT

in Virginia, Carolina.—6½ pollices longa.

W.

† These birds arrive in the province of New-York in May: in June they lay two eggs, and in August migrate towards the south.

W.

THE BONANA FINCH *.

THIS bird delights to perch on the banana, or bonana, which has given occasion to its name. The feathers of the upper part of the body are silky, and dull blue; the belly variegated with yellow; the wings and tail of a dull blue, bordering on green; the legs black; the head large in proportion to the body; the bill short, thick, and round.

* CHARACTER SPECIFICUS.

FRINGILLA JAMAICA. F. grisea, pectore viridi-cærescente, remigibus rectricibusque nigris.—*Lath. Ind. Orn.* i. p. 443. No. 29.

FRINGILLA JAMAICA.—*Bris.* iii. p. 166. 42.—*Gmel. Syst.* i. p. 920.

EMBERIZA REMIGIBUS RECTRICIBUSQUE NIGRIS.—*Amen. Ac.* i. p. 497.

LE BONANA.—*Buff. par Sonn.* xlviii. p. 33.

PASSER CÆRULEO-FUSCUS.—*Raii Syn.* p. 167. 46.—*Sloan. Jam.* p. 311. 47. t. 257. f. 3.

GREY GROSBEEK.—*Brown. Ill.* t. 26.

BONANA FINCH.—*Lath. Syn.* iii. p. 269. 25.

HABITAT

in Jamaica.

W.

This bird inhabits Jamaica.

Total length four inches and a half; the bill four lines; the alar extent eight inches and some lines; the tail about sixteen lines, and stretches five or six lines beyond the wings.

THE ORANGE FINCH*.

THE head, back, and scapular feathers, are black; but on each side of the head are two white rays, one of which passes above, and the other below the eye. The neck is black before and dull red behind, which is spread over the rump and the superior coverts of the tail; the throat is yellow; the breast, orange; the belly is white as far as the lower coverts of the tail, and including them; the tail is brown; and the

* CHARACTER SPECIFICUS.

FRINGILLA ZENA. F. nigra subtus alba, linea supra infraque oculos candida, pectore fulvo, gula macula flava.—*Lath. Ind. Orn.* i. p. 446. No. 46.

FRINGILLA ZENA.—*Gmel. Syst.* i. p. 907.

———— BAHAMENSIS.—*Bris.* iii. p. 168. 43.

LE PINSON à TÊTE NOIRE et BLANCHE†.—*Buff. par Sonn.* xviii. p. 35.

BAHAMA FINCH.—*Cat. Car.* i. t. 42.

ORANGE FINCH.—*Arct. Zool.* ii. No. 244.—*Lath. Syn.* iii. p. 276. 41.

HABITAT

in insulis Bahamensibus, Jamaica, quoque America australi.
—6½ pollices longa. W.

† i. e. Black and white-headed Finch.

wings are of the same colour, but have a white transverse ray.

This bird is very common in Bahama, and in many other tropical parts of America. It is nearly of the size of the common chaffinch; it weighs six *grôs*.

Total length six inches and one-fourth; the bill seven lines; the tail two inches and one-third, and extends about fifteen lines beyond the wings.

THE TOWHE BUNTING *.

BLACK predominates on the upper part of this bird (on the top of the breast, according to Catesby), and on the quills of the wings, and the tail; the latter, however, are edged with white; the middle of the belly is white; the rest of the under part of the body dull red; the back black; the eyes red; and the legs brown. The female is entirely brown, with a red tinge on the breast.

* CHARACTER SPECIFICUS.

EMBERIZA ERYTHROPTALMA. *E. nigra rubro relucens*, abdomine rufescente, macula alarum alba.—*Lath. Ind. Orn.* i. p. 413. No. 48.

EMBERIZA ERYTHROPTALMA.—*Gmel. Syst.* i. p. 874.

FRINGILLA ERYTHROPTALMA.—*Lin. Syst.* i. p. 318. 6.

———— CAROLINENSIS.—*Bris.* iii. p. 169. 44.

LE PINCON NOIR AUX YEUX ROUGES†.—*Buff. par Sonn.* xlviii. p. 37.

TOWHE BUNTING.—*Arct. Zool.* ii. No. 224.—*Cat. Car.* i. t. 34.—*Lath. Syn.* iii. p. 199. 43.

HABITAT

in America.—8 pollices longa.

W.

† i. e. "Black Finch with red eyes:" the Linnæan appellation also of *Erythroptalma* (ερυθροφθαλμος) expresses the same.

This bird is found in Carolina ; it goes in pairs, and lodges in the thickest woods ; it is the bulk of a crested lark.

Total length eight inches ; the bill eight lines ; the legs sixteen lines ; the tail three inches, and extends about twenty-seven lines beyond the wings, from which circumstance we may infer that it cannot fly to a great distance.

THE BLACK and YELLOW FINCH *.

THE general colour of this bird is velvet-black, which sets off the beautiful yellow that prevails on the base of the wing, the rump, and the superior coverts of the tail, and which borders the large quills of the wings. The small quills, and the great coverts, are edged with grey; the bill and legs are also grey.

This bird was sent from the Cape of Good Hope, and is of the size of an ordinary Chaffinch.

Total length above six inches; the bill eight lines, the legs twelve lines; the mid-toe ten lines, the hind-toe nearly as long; alar extent ten inches and one-fourth; the tail two inches and two lines, and stretches twelve lines beyond the wings †.

* See Cape Grosbeak for the specific character.

† These birds are common at the Cape of Good Hope, and on the coast of Coromandel. They are always seen in flocks, and are very destructive to the plantations. They generally settle in the rushes which border the rivers and rivulets. Their eggs are cinereous, spotted with black, and their flesh is delicate and savoury.

W.

THE LONG-BILLED FINCH*.

THE head and throat are black; the upper part of the body varied with brown and yellow, the under part with yellow orange; it has a chesnut collar; the quills of the tail are olive on the outside, the great quills of the tail are of the same colour, tipped with brown; the middle ones brown, edged with yellowish; the bill and legs grey-brown. It was sent from Senegal. Its bulk nearly that of the common chaffinch.

* CHARACTER SPECIFICUS.

FRINGILLA LONGIROSTRIS. F. fusco flavoque varia, sub-
tus subfulva, capite nigro, collo torque castaneo, rectrici-
bus olivaceis intus flavo marginatis.—*Lath. Ind. Orn.* i.
p. 447. No. 48.

FRINGILLA LONGIROSTRIS.—*Gmel. Syst.* i. p. 900.

————— SENEGALENSIS.—*Bris.* iii. p. 173. 48. t. 15. f. 2.

LE PINCON à LONG BEC.—*Buff. par Sonn.* xlviii. p. 41.

LONG-BILLED FINCH.—*Lath. Syn.* iii. p. 277. 42.

HABITAT

in Senegala.— $6\frac{1}{2}$ pollices longa.

W.

Total length six inches and one-fourth; the bill nine lines; the legs eleven lines; the mid-toe ten lines; the alar extent ten inches and one-fourth; the tail two inches and a half, and reaches an inch beyond the wings. It has the longest bill of all the known finches.

THE CHINESE FINCH*.

THE base of the bill, the cheeks, the throat, the fore-part of the neck, and the superior coverts of the tail, are of an olive-green; the upper part of the head, and of the body, of an olive-brown, with a slight rufous tinge on the back, the rump, and the coverts of the wings next the body; the tail black, edged with white, and tipped with whitish; the breast and the belly rufous, mixed with yellow; the inferior coverts of the tail and of the wings of a fine yellow; the bill and the legs yellowish. It is nearly of the size of a linnet. The female has the colours, as usual, more dilute.

* CHARACTER SPECIFICUS.

FRINGILLA SINICA. F. rufo-olivacea, subtus testacea, remigibus rectricibusque nigris basi luteis.—*Lath, Ind. Orn.* i. p. 447. No. 49.

FRINGILLA SINICA.—*Osb. Voy.* ii. p. 329.—*Gmel. Syst.* i. p. 910.—*Bris.* iii. p. 175. 14. t. 7. f. 2.

L'OLIVETTE.—*Buff. par Sonn.* xlviii. p. 43.

PINÇON de la CHINE.—*Pl. Enl.* 157. f. 3.

CHINESE FINCH.—*Lath. Syn.* iii. p. 277. 43.

HABITAT

in China.—6½ pollices longa,

W.

Total length five inches; the bill six lines; the legs six lines and a half; mid-toe seven lines; alar extent eight inches and one-third; the tail twenty-one lines, forked, and projecting only five or six lines beyond the wings.

THE EUSTACHIAN FINCH

YELLOW predominates on the throat, the neck, the head, and all the upper part of the body; on all the extremities, viz. the bill, the legs, the wings, and the tail: these two colours meeting together, form a beautiful orange on the breast, and on all the lower part of the body. On each side of the head there is a blue spot immediately below the eye.

Seba says that this bird was sent from the island of St. Eustatius, and he calls it the *African Finch*; probably because this author knew an island of St. Eustachius in Africa, very dif-

* CHARACTER SPECIFICUS.

FRINGILLA EUSTACHII. F. flava subtus aurantia, macula infra oculos cœrulea, alis caudaque rubris.—*Lath. Ind. Orn.* i. p. 448. No. 54.

FRINGILLA EUSTACHII.—*Gmel. Syst.* i. p. 911.

————— INSULÆ S. EUSTACHII.—*Bris.* iii. p. 177. 48.

LE PINSON JAUNE ET ROUGE†.—*Buff. par Sonn.* xlviii. p. 45.

PASSER AFRICANUS EXIMIUS.—*Seb.* ii. p. 67. t. 65. f. 2.

EUSTACHIAN FINCH.—*Lath. Syn.* iii. p. 279. 47.

HABITAT

in insula S. Eustachii.

W. *

† i. e. The yellow and red Finch.

ferent from that which commonly goes under that name; which is one of the Little Antilles. It is nearly of the size of the chaffinch.

Total length five inches and a half; the bill six lines; the legs six lines and a half; the mid-toe seven lines; the tail twenty-one lines, and extends about ten lines beyond the wings.

THE VARIEGATED FINCH*.

SEBA gives this bird the name of Twite, which it received in New Spain, and which seems borrowed from its cry.

This charming bird has its head of a light red, mixed with purple; the breast of two sorts of yellow; the bill yellow; the legs red; all the rest variegated with red, white, yellow, and blue; lastly, the wings and tail edged with white. It is nearly of the size of the common chaffinch.

Total length, five inches and two-thirds; the bill six lines and a half; the legs eight lines; the mid-toe seven lines and a half; the tail two inches, and it stretches eleven lines beyond the wings.

* CHARACTER SPECIFICUS.

FRINGILLA VARIEGATA. F. rubro flavo cœruleo alboque variegata, pectore lutescente nebuloso, rectricibus apice margine albo.—*Lath. Ind. Orn.* i. p. 448. No. 55.

FRINGILLA VARIEGATA.—*Gmel. Syst.* i. p. 911.

————— VARIA NOVÆ HISPANIÆ.—*Bris.* iii. p. 178. 40.

LE TOUITE.—*Scb.* i. p. 175. t. 110. f. 7.—*Buff. par Sonn.* xlviii. p. 47.

VARIEGATED FINCH.—*Lath. Syn.* iii. p. 279. 48.

HABITAT

in Nova Hispania.

W.

THE FRIZZLED FINCH*.

THIS bird owes its name to the frizzled feathers on its bill and back. Its bill is white; its head and neck black, as if it were a hood of that colour; the upper part of the body, including the quills of the tail and of the wings, brown olive; the under part of the body yellow; the legs deep brown.

As this bird came from Portugal, it is presumed that it was sent from the principal settlements of that nation, viz. the kingdom of Angola in Africa, or from Brazil.

* CHARACTER SPECIFICUS.

FRINGILLA CRISPA. F. olivacea subtus lutea, capite nigro, pennis plurimis recurvatis.—*Lath. Ind. Orn.* i. p. 449. No. 56.

FRINGILLA CRISPA.—*Gmel. Syst.* i. p. 927.—*Bris. App.* p. 86.

LE PINÇON FRISE'.—*Buff. par Sonn.* xlviii. p. 49. pl. 111. f. 3.
BLACK AND YELLOW-FRIZZLED SPARROW.—*Edw.* t. 271. f. 1.

FRIZZLED FINCH.—*Lath. Syn.* iii. p. 280. 49.

*

HABITAT

in Africa.

W.

It is nearly of the size of the common chaffinch.

Total length five inches and a half; the bill five or six lines; the tail is composed of twelve equal quills, and extends ten lines beyond the wings.

THE COLLARED FINCH*.

THIS bird has two half-collars, the one before and the other behind; the first is black, and is the lower of the two, the other is white; the breast also, and all the under part of the body, is stained with rust-colour; the throat, the ring of the bill and eyes, of a pure white; the head black; all the upper part of the body cinereous brown, which grows lighter on the superior coverts of the tail; the great quills of the wings black; the middle ones and the superior coverts black, edged with a glossy reddish brown; the bill black, and the legs

* CHARACTER SPECIFICUS.

FRINGILLA INDICA. F. cinereo-fusca, subtus rufo-alba, capistro jugulo torqueque colli albis, fascia pectorali alia caudaque nigris.—*Lath. Ind. Orn.* i. p. 449. No. 57.

FRINGILLA INDICA.—*Gmel. Syst.* i. p. 928.

————— TORQUATA INDICA.—*Bris. App.* p. 85.

LE PINCON à DOUBLE COLLIER.—*Buff. par Sonn.* xlviii. p. 51.

COLLARED FINCH.—*Edw. t.* 272.—*Lath. Syn.* iii. p. 280. 50.

HABITAT

in India.

W.

brown. Brisson says that it is a native of India. It is as large as the chaffinch.

Total length about five inches; the bill six lines; the tail twenty lines; it consists of twelve equal quills, and projects ten lines beyond the wings.

THE MARYGOLD GROSBEAK*.

I HAVE formed an appellation for this new species from the two principal colours of its plumage: the throat, the fore part of the neck, and the breast, are marygold (*souci*); the under part of the body blackish (*noiratre*); the quills of the wings and of the tail also blackish, edged exteriorly with blue; the head and the upper part of the neck of the same colour; the belly and the inferior coverts of the tail sulphur yellow; the bill blackish, short, strong, and convex; the inferior mandible lighter coloured; the nostrils round, placed in the base of the bill, and perforated; the tongue-semi-cartilaginous and forked; the legs reddish-brown; the mid-toe joined to the outer one by

* CHARACTER SPECIFICUS.

LOXIA BONARIENSIS. L. nigricans, subtus flavescens, capite colloque superiore cœruleis, jugulo pectoreque fulvis.—*Lath. Ind. Orn.* i. p. 385. No. 47.

LOXIA BONARIENSIS.—*Gmel. Syst.* i. p. 850.

LE NOIR-SOUCI.—*Buff. par Sonn.* xviii. p. 53.

MARYGOLD GROSBEAK.—*Lath. Syn.* iii. p. 139. 43.

HABITAT

in Bonariæ hortis.—7 pollices longus.

W.

a membrane, as far as the first articulation; the outer toe the largest, and its nail the strongest; the nails are in general sharp, hooked, and scooped.

These birds appear in pairs; and the male and female seem to bear a mutual and faithful attachment: they frequent the cultivated fields and gardens, and live on herbs and seeds. Commerson, who first introduced them to our acquaintance, and who observed them at Buenos Ayres in the month of September, assigns their rank between the finches and the grosbeaks. He says they are of the size of a sparrow.

Total length seven inches; the bill seven lines; alar extent eleven inches and a half; the tail thirty-three lines, and consists of twelve equal quills; the wings have seventeen quills, and the second and third are the longest of all.

THE WIDOWS*.

ALL the species of Widows are inhabitants of Africa; but they are not entirely confined to that region, for they occur in Asia, and even in the Philippine Islands. They all have a conical bill of sufficient strength to break the seeds on which they feed: they all are distinguished by a long tail, or rather by long feathers, which in most of the males accompany the true tail, and are inserted above or below its origin: lastly, all, or nearly all of them, are subject to two annual moultings, the interval between which corresponds to the rainy season, and lasts six or eight months, during which the males lose not only their long tail, but their rich colour and pleasant warble †; and it is not before the return of spring that they recover the attributes or ornaments of their sex.

The females undergo the same moultings, but not only is the change less perceptible in them, but the colours of their plumage are not so much affected.

* Les Veuves.—*Buff.*

† The melody of their song is one of the reasons that induces Edwards to class them with the finches rather than with the sparrows.

The period of the first moulting in the young males must evidently depend on the time of their birth: those of the earliest hatch assume their long tail in May; but those hatched latest in the season do not assume it till September or October.

Travellers assert that the Widows construct their nest with cotton, and that they divide it into two stories *, the upper being destined for the male, and the under for the female. It is possible to ascertain this circumstance in Europe, and even in France, where by a careful attention the Widows may be made to lay and hatch, as is successfully practised in Holland.

These birds are lively and volatile, and are constantly raising and dropping the tail: they are very fond of bathing, not at all subject to diseases, and live twelve or fifteen years. They are fed with a mixture of spikenard and millet; and by way of cooling, they have leaves of succory.

It is somewhat odd that the name of Widows, by which they are now generally known, and which seems to be very applicable to both, because of the black that predominates in their plumage, and because of their train at the tail, owed its origin to a mere mistake. The Portuguese called them at first *Birds of Whidha*

* *Vide* Kolben's description of the Cape of Good Hope. It appears very probable, that the changeable-plumaged goldfinches, of which he speaks, are really Widow-birds.

(that is, of Juida), because they are very common on that coast of Africa; and foreigners were deceived by the similarity between that word and the name of Widow in the Portuguese tongue*.

We shall here treat of eight species of Widows; viz. the five already known and described by Brisson; two new ones which are already distinguished by a beautiful red spot on the wing, and another on the breast: lastly, to these I shall add the bird which Brisson calls *the Long-tailed Linnet*, which, were it only for the long tail, I should rather range with the Widows than with the linnets.

* Edwards was led into this mistake, which he afterwards discovered.

THE GOLD-COLLARED WIDOW*.

THE neck of this bird is covered by a broad half-collar, of a fine yellow gold colour; the belly and thighs are white; the abdomen and the covers of the under part of the tail blackish; the head, throat, fore part of the neck, back, wings, and tail, black. The tail is formed as in other birds; it consists of twelve quills nearly equal, and covered by four long feathers, which rise also from the rump, but somewhat higher; the two longest are about thirteen inches, and are black, like those of the

* CHARACTER SPECIFICUS.

EMBERIZA PARADISÆA. *E. fusca*, pectore rubro, rectricibus intermediis quatuor elongatis acuminatis, duabus longissimis, rostro nigro.—*Lath. Ind. Orn.* i. p. 405. No. 20.

EMBERIZA PARADISÆA.—*Gmel. Syst.* i. p. 882.

VIDUA.—*Bris.* iii. p. 120. 25. t. 8. f. 1.

PASSER INDICUS MACROURUS ALIUS.—*Raii Syn.* p. 87. 10.—*Will.* p. 184.

LA VEUVE à COLLIER d'OR.—*Buff. par Sonn.* xlviii. p. 65.

LA GRANDE VEUVE d'ANGOLA.—*Pl. Enl.* 194.

RED-BREASTED LONG-TAILED FINCH.—*Edw.* t. 86.

WHIDAH BUNTING.—*Lath. Syn.* iii. p. 178. 15.

HABITAT

in Angola.

W.

tail, and appear waved, and as it were clouded; a little arched like those of the cock; their breadth, which is nine lines near the rump, is reduced to three near the extremity: the shortest are inclosed between the two longest, and are only half as long, but they are twice as broad, and end in a slender silky filament, more than an inch long.

These four feathers have their planes in a vertical situation, and are bent downwards; they drop every year in the first moulting about the beginning of November, and at this period their plumage suffers a total change, and becomes like that of the brambling. It is now variegated on the head with white and black; the breast, the back, the superior coverts of the wings, dirty orange, sprinkled with blackish; the feathers of the tail and the wings of a very deep brown; the belly, and all the rest of the under part of the body, white:—such is its winter garb, which it retains till the vernal season, when it undergoes a second moulting as complete as the former, but happier in its effects, for it restores the fine colours, the long feathers, and all the decorations; and before the beginning of July the bird has experienced a total renovation. The colour of its eyes, of its bill, and of its legs, never vary: the eyes are chesnut; the bill lead-colour; and the legs flesh-colour.

The young females are nearly of the colour of the males in moult; but at the end of three

years their plumage has become brown, almost black, and changes no more.

These birds are common in the kingdom of Angola; on the western coast of Africa: some have also been sent from Mozambique, a small island on the eastern coast of the same continent, and which differed little from the former. The subject which Edwards figured lived four years in London.

Total length fifteen inches; length measured from the tip of the bill to the end of the nails four inches and a half; the bill four lines and a half; the clear alar extent nine inches; the false tail thirteen inches, the true tail twelve lines, and projecting about an inch beyond the wings.



THE SHAFT TAILED HUNTING

THE SHAFT-TAILED WIDOW*.

This bird has the same two moultings as the preceding, and they are attended with similar effects. Its bill and legs are red; the head and all the upper part of the body black; the throat, the forepart of the neck, the breast, and all the lower part, bluish-coloured; but which is brighter on the neck than on the breast, and extending behind the neck, it forms an half-collar, which is broader the lower the black hood descends from the head. All the feathers of the tail are blackish, but the four middle ones are four or five

CHARACTER SPECIFICUS.

EMBERIZA RECTA. E. rectricibus intermediis quatuor longissimis æqualibus, apice tantum pennatis, rostro rubro.

—*Lath. Ind. Orn.* i. p. 406. No. 24.

EMBERIZA RECTA. —*Gmel. Syst.* i. p. 884.

VIDUA RUFICAPILLA AFRICANA. —*Bris. iii.* p. 129. 28. t. 9. f. 1.

LA VEUVE DE LA COTE d'AFRIQUE. —*Pl. Enl.* 8. f. 1.

LA VEUVE A QUATRE BRAS. —*Syn. par Sonn.* xviii.

No. 72. pl. 20. f. 3.

SHAFT-TAILED BOWTING. —*Lath. Syn.* iii. p. 183. 19.

HABITAT

in Africa.

W.

† i.e. The Widow with four filaments. It is also called *Silk-tail*.

imes longer than those of the side, and the two middle ones are the longest of all. In moulting, the male becomes like the linnet, only it is of a lighter grey. The female is brown, and has not the long feathers in the tail.

This bird is rather smaller than a Canary; several of them are living at Paris, and were all brought from the coasts of Africa*.

The average measures are:—total- length twelve or thirteen inches: that from the tip of the bill to the end of the nails four or five inches; the bill four or five lines; the alar extent eight or nine inches; the two mid-feathers of the tail nine or eleven inches; the two next eight or ten inches; the lateral ones twenty to twenty-three lines.

* Sonnini says, that the Shaft-tailed Widow is a most melodious bird, and sings all the summer; but that it will not breed in France.

W.

THE DOMINICAN WIDOW *.

If length of tail be the distinguishing character of the Widow-birds, this is the least entitled to that appellation ; for the longest quills of its tail scarcely exceed four inches. It has received the name of *Dominican*, on account of its black and white plumage ; all the upper part of the body is variegated with these two colours ; the rump, and the superior coverts of the tail, are mottled with dirty white and blackish ; the upper part of the head of a white reddish, encircled with black ; the throat, the fore-part of the neck, and the breast, of the same white, which also extends behind, and forms a half-

* CHARACTER SPECIFICUS.

EMBERIZA SERENA. E. pileo nigro, vertice rubro, cauda cuneiformi, rectricibus duabus intermediis longissimis, pedibus griseis.—*Lath. Ind. Orn.* i. p. 405. No. 21.

EMBERIZA SERENA.—*Linn. Syst.* i. p. 312. 20.—*Gmel. Syst.* i. p. 883.

VIDUA MINOR.—*Bris.* iii. p. 124. 26. t. 8. f. 2.—*Id.* 8vo. i. p. 341.

LA VEUVE DOMINICAINE.—*Buff. Pl. Enl.* 8. f. 2.—*Buff. par Sonn.* xlviii. p. 75.

DOMINICAN BUNTING.—*Lath. Syn.* iii. p. 180. 16.

♂² pollices longa.

W.

collar on the posterior surface of the neck. The belly has none of the rufous tinge. The bill is red, and the legs grey.

This species undergoes two moultings annually, like the preceding; in the interval the male is divested of its long tail, and its white is dirtier. The female never has these long feathers of the tail, and its plumage is constantly of an almost uniform brown.

Length to the end of the tail, six inches and one-fourth; to the end of the nails, four inches; the bill four lines and a half; the legs seven lines; the mid-toe seven lines and a half; the alar extent seven inches and a half; the middle feathers of the tail project about ~~two inches~~ and one-fourth beyond the lateral ones, which are notched, and three inches and one-fourth beyond the wings*.

* Commerson suspected that a certain bird of a blueish-black which he saw in the isle of Bourbon, where it was called *Brenoud*, is nothing but this same Widow in moult; and he thence concluded, that when the male moulted its plumage, it was more uniform. But this would apply better to the female than to the male; and yet there is a wide difference between blueish-black, which is the colour of the *Brenoud*, and uniform brown, which is that of the female Dominican. This *Brenoud* resembles more the Great Widow.



FIG 1 THE LONG TAILED BUNTING FIG 2 THE SAME AFTER
MOLTING.

THE GREAT WIDOW

THE mourning garb of this Widow is somewhat brightened by the fine red colour of the bill, by a tint of blueish-green spread over all the black, that is, over all the upper surface ; by two transverse bars, the one white, and the other yellowish, with which the wings are decorated ; and lastly, by the whitish colour of the lower part of the body, and the lateral quills of the tail. The four long feathers inserted above the

* CHARACTER SPECIFICUS.

EMBERIZA VIDUA. *E. nigricans, subtus albida, rectricibus intermediis quatuor elongatis acuminatis, duabus longissimis, rostro rubro.*—*Lath. Ind. Orn.* i. p. 403. No. 22.

EMBERIZA VIDUA.—*Gmel. Syst.* i. p. 883.

VIDUA MAJOR.—*Bris.* iii. p. 127. 27.

PASSER INDICUS MACROURUS, ROSTRO MINIACEO.—*Raii Syn.* p. 67.—*Will.* p. 184. t. 45.

LA GRANDE VEUVE.—*Buff. par Sonn.* xlviii. p. 73. pl. 110. fig. 6.

LONG-TAILED BENTING.—*Lath. Syn.* iii. p. 181. 17.

true tail * are black, and so are the quills of the wings; they are nine inches long, and very narrow. Aldrovandus adds, that the legs are variegated with black and white; and the nails black, very sharp, and hooked.

* Aldrovandus expressly observes, that the male has a double tail like the peacock, and that the longer rests upon the shorter. It seems odd that Brisson describes the four feathers of the upper tail as the intermediate ones of the true tail,

THE ORANGE-SHOULDERED WIDOW*.

THE prevailing colour in the plumage of this bird is glossy black; and the only exception is in the wings, where the small coverts are of a fine red, and the middle ones of a pure white, which gives the bird a sort of epaulettes. The large as well as the small quills of the wings are black, edged with a lighter colour.

This bird is found at the Cape of Good Hope. It has, like all the rest, a double tail; the lower consists of twelve feathers nearly equal, the up-

* CHARACTER SPECIFICUS.

EMBERIZA LONGICAUDA. E. nigra, humeris fulvis albo marginatis, rectricibus elongatis, 6 intermediis longissimis.

—*Lath. Ind. Orn.* i. p. 406. No. 25.

EMBERIZA LONGICAUDA.—*Gmel. Syst.* i. p. 884.

LA VEUVE à EPAULETTES.—*Buff. i. i. Enl.* 635.—*Buff. par Sonn.* xlviii. p. 60.

LOXIA LONGICAUDA.—*Mill. Ill.* t. 3. A.

YELLOW-SHOULDERED ORIOLE.—*Brown Ill.* t. 11.

ORANGE-SHOULDERED BUNTING.—*Lath. Syn.* iii. p. 184.

20.

HABITAT

ad Caput B. Spei.

W.

224 THE ORANGE-SHOULDERED WIDOW.

per of six, which are of different lengths ; the longest are thirteen inches, and in all their plane is vertical. •

*Total length nineteen or twenty-one inches ; the bill eight or nine lines ; the legs, thirteen lines ; the tail thirteen inches *.*

* Levaillant says, that the female of this fine bird is as plain as a lark, with a short horizontal tail, like that of most other birds : the male, on the contrary, is totally black, except the base of the wing ; and its long handsome tail is vertical like that of a common cock ; but this brilliant plumage and fine vertical tail lasts only during the season of love, which continues six months. After this his fine robe is changed, he takes the modest dress of his companion, and, what is more extraordinary, his vertical tail becomes horizontal, and he then so strongly resembles the female, that it is not possible to distinguish them.

The female, on the contrary, when she is passed bearing, takes the plumage of the male, and erects her tail in the same manner.

This species live in a kind of public society, and build their nests very near each other. The society is generally composed of about forty females, and, for some unknown reason, there are never more than ten or twelve males to serve them all.

W.

THE SPECKLED WIDOW *.

ALL the upper part is speckled with black on an orange ground; the quills of the wing and its great coverts are black, edged with orange; the breast is of a lighter orange, without speckles; the small coverts of the wing are white, and form a broad transverse bar of that colour, which predominates in all the lower part of the body; the bill is of a lively red, and the legs flesh-coloured.

The four long feathers are of a deep black; they constitute no part of the true tail, as might be supposed, but form a sort of false tail which leans on the first. These long feathers are cast

* CHARACTER SPECIFICUS.

EMBERIZA PRINCIPALIS. *E. variegata*, pectore rufo, rectricibus mediis quatuor longissimis, rostro pedibusque rubris.—*Lath. Ind. Orn.* i. p. 406. No. 23.

EMBERIZA PRINCIPALIS.—*Gmel. Syst.* i. p. 884.

VIDUA ANGOLENSIS.—*Bris. App.* p. 80.

LA VEUVE MOUCHETE'E.—*Buff. par Sonn.* xlviii. p. 83.

LONG-TAILED SPARROW.—*Edw.* t. 270.

VARIEGATED BUNTING.—*Lath. Syn.* iii. p. 181. 17.

HABITAT

in Angola.

W.

in moulting, but quickly replaced ; which is common in most birds, though rather unusual in the Widows. When these feathers have acquired their full length, the two middle ones project five inches and a half beyond the lower tail, and the two others an inch less. The quills of the lower or true tail are of a dull brown ; the side ones edged exteriorly with a lighter colour, and marked within with a white spot.

This bird is of the size of the Dominican Widow ; its bill is of a bright red, shorter than that of the sparrow, and the legs flesh-coloured.

THE FIRE-COLOURED WIDOW*.

THIS bird is entirely of a fine glossy black, except a single red spot on its breast, which appears like a burning coal. It has four long equal feathers which are inserted below the true tail, and extend beyond it more than double its length; they grow narrower by degrees, so that they terminate in a point. This bird is found at the Cape of Good Hope, and in the island of Panay, one of the Philippines: it is of the size of the Gold-collared Widow. Its total length is twelve inches.

* CHARACTER SPECIFICUS.

EMBERIZA PANAYENSIS. E. nigra, macula pectoris coccinea, rectricibus quatuor intermediis longissimis æqualibus acuminatis.—*Lath. Ind. Orn.* i. p. 407. No. 26.

EMBERIZA PANAYENSIS.—*Gmel. Syst.* i. p. 885.

LE VEUVE EN FEU.—*Buff. par Sonn.* xlviii. p. 86. pl. 111, f. 1.

——— à POITRINE ROUGE.—*Pl. Enl.* 647.

——— de l'ISLE de PANAY.—*Son. Voy.* p. 117. t. 76.

PANAYAN BUNTING.—*Lath. Syn.* iii. p. 184. 21.

HABITAT

in insula Panay.—12 pollices longa.

W.

Q 2

THE EXTINCT WIDOW*.

BROWN cinereous is the prevailing colour of this bird ; but the base of the bill is red, and the wings flesh-colour mixed with yellow. It has two quills triple the length of its body, which are inserted in the rump, and tipt with bay-red.

* CHARACTER SPECIFICUS.

EMBERIZA PSITTACEA. E. cinereo fusca, alis fulvis, rectricibus duabus longissimis.—*Lath. Ind. Orn.* i. p. 404. No. 19.

EMBERIZA PSITTACEA.—*Gmel. Syst.* i. p. 882.

LINARIA BRASILIENSIS LONGICAUDA.—*Bris.* iii. p. 147. 35.

FRINGILLA BRASILIENSIS.—*Seba*, i. p. 103. t. 66. f. 5.

LE VEUVE ETEINTE.—*Buff. par Sonn.* xlviii. p. 87.

PSITTACEOUS BUNTING.—*Lath. Syn.* iii. p. 178. 14.

HABITAT

in Brasilia.—Tota avis 11½ pollices longa.

W.

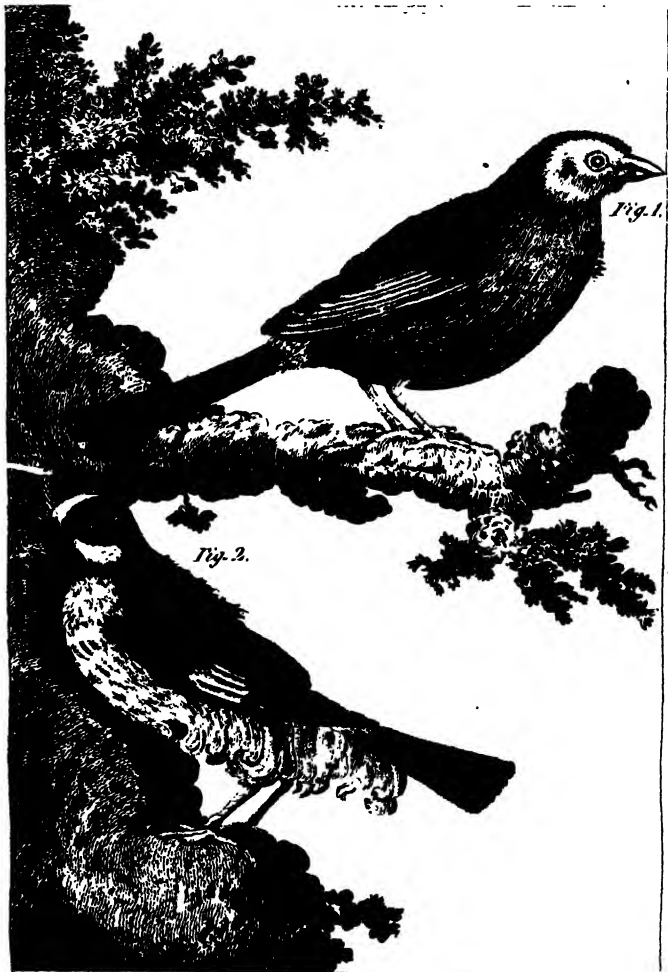


FIG 1 THE BRASILIAN FINCH.

FIG 2 THE FRIZLED BRASILIAN FINCH.

THE GRENADIN*.

THE Portuguese, perceiving probably a resemblance between the plumage of this bird, and the uniform of some of their regiments, have named it the *Oronoco Captain*. Its bill and orbits are bright red; its eyes black; on the sides of the head is a large plate of purple almost round, whose centre lies on the posterior edge of the eye, and which is interrupted between the eye and the bill by a brown spot; the throat and the tail are black †; the quills of the wings brown grey, edged with light grey; the hind-

* CHARACTER SPECIFICUS.

FRINGILLA GRANATINA. F. cauda cuneiformi, corpore rufescente, rostro rubro, temporibus uropygio abdomineque violaceis.—*Lath. Ind. Orn. i. p. 463 No. 87.*

FRINGILLA GRANATINA.—*Gmel. Syst. i. p. 906.—Bris. iii. p. 216. 67. t. 9. f. 3.*

LE GRENADIN.—*Buff. par Sonn. xlviii. p. 89. pl. 111. fig. 2.*

BRASILIAN FINCH.—*Edw. t. 191.—Bancr. Guian. p. 191.—Lath. Syn. iii. p. 316. 87.*

HABITAT

in Brasilia, Guiana.

W.

† In some subjects the throat is of a greenish-brown.

part of the body, both above and below, is of a blue-violet; all the rest of the plumage is gilded deep brown; but on the back it is variegated with greenish-brown, and this same gilded deep brown, edges exteriorly the coverts of the wings. The legs are of a dull flesh-colour. In some individuals the base of the upper mandible is encircled by a purple zone.

This bird is found in Brazil. Its motions are lively, and its song agreeable. It has the long bill of our goldfinch*, but differs by its extended tapered tail.

The female is of the same size with the male; its bill red; a little purple under the eyes; the throat, and the under side of the body, pale-fulvous; the top of the head of a deeper fulvous; the back brown-grey; the wings brown; the tail blackish; the superior coverts blue, as in the male; the inferior coverts, and the lower belly, whitish.

Total length five inches and one-fourth; the bill five lines; the tail two inches and a half, composed of twelve tapered quills, the longest exceeding the shortest by seventeen lines, and the extremity of the wings by two inches; the tarsus seventeen lines; the hind nail the strongest of all. In the wings the fourth and fifth quills are the longest.

* Edwards found the length of the bill to vary in different individuals.



THE GREENFINCH

THE GREENFINCH*†,

THIS bird must not be confounded with the yellow bunting (*Bruant*), though in many provinces it bears the same name; for, not to mention other distinctions, it wants the osseous tubercle in the palate.

* CHARACTER SPECIFICUS.

LOXIA CHLORIS. *L. flavicanti-virens*, remigibus primoribus anficæ luteis, restricibus lateralibus quatuor basi luteis.
—*Lath. Ind. Orn.* i. p. 382. No. 39.

LOXIA CHLORIS.—*Gmel. Syst.* i. p. 854.—*Rati Syn.* p. 85. A. 4.—*Will.* p. 129. t. 44.—*Bris. in.* p. 190. 54.

LE VERDIER.—*Buff. Pl. Enl.* 287. f. 2.—*Buff. par Sonn.* xlviii. p. 102. pl. 112. fig. 1.

GREENFINCH.—*Br. Zool.* No. 117.—*Arct. Zool.* ii. p. 353. B.
—*Will. (Angl.)* p. 246. t. 44.—*Lath. Syn.* iii. p. 124.
—*Id. Sup.* p. 152.—*Bew. Buds,* i. p. 140.

HABITAT

in Europa: in Anglia frequens.

† It is called in Germany, *Grünling*, *Brünnel*, *Tutter*, *Rapp-Finck*, *Hirn-Finck*, *Hirntogel*, *Welcher*, *Henffling*, *Kirsch-Finck*; in Italy, *Verdon*, *Verderro*, *Verd-montan*, *Zaranto*, *Caranto*, *Toranto*, *Frinsor*; in Portugal, *Verdelham*; in Savoy, *Verdeyre*; in Illyria, *Zeglolka*; in Bohemia, *Schwonetz*; in Prussia, *Gruener-Henffling*, *Schwontzke*; in Poland, *Drwonieck*, *Konopka*; in Sweden, *Svenska*.

The Greenfinch passes the winter in the woods, and shelters itself from the inclemency of the season in the evergreen trees, and even in elms and branchy oaks which retain their withered leaves.

In spring it makes its nest in the same trees, and sometimes in bushes: this nest is larger, and almost as neatly formed as that of the chaffinch; it consists of dry herbs and moss, lined with hair, wool, and feathers; sometimes it places it in the chinks of the branches, which it even widens with its bill; it also constructs near the spot a little magazine for provisions*.

The female lays five or six eggs, spotted at the large end with brown-red on a white-greenish ground†. She sits assiduously, and still continues on her eggs though a person approaches pretty near; so that she is often caught with her young: at all other times she is shy and timid. The male seems to take much interest in the concerns of his future family; he relieves his mate in hatching; wheels round the tree where his hopes are lodged, makes sudden springs, and again sinks back, flapping his wings, and warbling joyous notes‡. At his return to the country, and at his departure, he utters a singular cry, consisting of two sounds.

* We owe these last facts, and some others, to M. Guys.

† Sonnini says pure white.

W.

‡ They are kept in a cage, because they sing pleasantly.—

BELON. Guys adds, that the warble of the female is even superior to that of the male, which would be singular in birds.

The warble is said to be improved in the cross-breed between the Greenfinch and the Canary.

The Greenfinches are gentle, and easily tamed; they learn to articulate a few words; and no bird so soon becomes expert at the little manœuvre of drawing up the cup*. They eat from the finger of their master, and answer his call, &c. In autumn they join other species, to roam in the fields; they live upon juniper-berries in winter; they crop the buds of trees, and particularly those of the bog-willow; they feed in summer on all sorts of seeds, and especially those of hemp; they also eat caterpillars, ants, and grasshoppers.

The name alone denotes that the predominant colour of the plumage is green; but the tinge is not pure; there is a grey-brown cast on the upper part of the body, and on the flanks, with an admixture of yellow on the throat and breast; yellow is spread over the top of the belly, the inferior coverts of the tail and wings, and on the rump; it edges the largest quills of the wings, and also the lateral quills of the tail: all these are blackish, and most of them bordered with white on the inside; the lower belly is also * white, and the legs reddish-brown.

The female has more brown; her belly is entirely white, and the inferior coverts of her tail are mingled with white, brown, and yellow.

The bill is flesh-coloured, shaped like a cone,

* *De la galere*, alluding to the labour of a galley-slave.

and similar to that of the Grosbeak, but smaller; its upper edges are slightly scalloped near the point, and receive those of the lower mandible, which are somewhat *re-entrant*. The bird weighs rather more than an ounce, and is nearly of the bulk of the house-sparrow.

Total length five inches and a half; the bill six lines and a half; the alar extent nine inches; the tail twenty-three lines, somewhat forked, stretching beyond the wings ten or eleven lines. These birds have a gall-bladder, a muscular gizzard covered with a loose membrane, and a pretty large craw.

Some pretend that there are Greenfinches of three different sizes; but this is not sufficiently ascertained, and probably such variations are only accidental, resulting from age, from food, from climate, and from other like circumstances*.

* The Greenfinch is very common in Great Britain, and usually nestles in the hedges.



FIG.1. THE CHINA BULFINCH.

FIG.2 THE BLUE BULFINCH.

THE PAINTED

THIS bird has its name (*Pape*) from the colours of its plumage, and especially from a sort of capuchin, which rises at the base of the bill, and extending below the eyes covers the upper and side parts of the head and neck, and in some individuals returns under the throat. The fore part of the neck, all the lower part of the

CHARACTER SPECIFICUS.

EMBERIZA CYPRUS. E. capite cœruleo, abdomine fulvo, dorso viridi, penne viridi-fuscis.—*Lath. Ind. Orn.* n.º 410. No. 61.

EMBERIZA CYPRUS.—*Gmel. Syst.* i. p. 885.

CHLORIS LUDOVICIANA, PAPE.—*Bris.* iii. p. 200, 561. f. 3.

LE PAPE.—*Buff. Pl. Enl.* 159. f. 1.—*Buff. par. Suppl.* xlviii. p. 111. pl. 112. fig. 3.

CHINA BULFINCH.—*Alb.* iii. t. 68.

PAINTED FINCH.—*Edw.* t. 130.—*Id.* t. 273. f. 6. *Cates. Car.* t. 44.

PAINTED BUNTING.—*Arct. Zool.* ii. No. 226.—*Lath.* iii. p. 206. 5.—*Id. Sup.* p. 459.

HABITAT

in Americæ variis partibus, inter Canadianam et Guianam.—
6½ pollices longus. W.

body, and even the superior coverts of the tail and of the rump, are of a fine red, almost fire-coloured; the back variegated with soft green and dull olive*; the great quills of the wings and of the tail are of a reddish brown, the great coverts of the wings are green; the small ones are of a violet blue, like the capuchin. But Nature requires time to form a plumage so charming, nor is it completed before the third year: the young Painted Buntings are brown the first year; in the second, their head is of a vivid blue, the rest of the body greenish-blue, and the quills of the wings and of the tail are brown, edged with greenish-blue.

But it is the female chiefly which resembles the greenfinch; the upper part of its body is of a dull green, and all the under part of a yellowish green; the great quills of the wings are brown, edged delicately with green; the middle ones, and also the quills of the tail, divided lengthwise into brown and green.

These birds breed in Carolina on the orange-trees, but do not continue there during the winter. Like the widows, they have two moultings annually, which are earlier or later according to circumstances. Sometimes they assume their winter garb in the end of August or the beginning of September; in this state the under part of their body changes from red

* In the subject described by Catesby, the green back was terminated with yellow.

to yellowish. They feed like the widow-birds, upon millet, canary-seeds, succory, &c. . . . but they are more delicate: however, if they are once seasoned to the climate, they will live eight or ten years. They are found in Louisiana.

The Hollanders have been able, by care and patience, to breed the Painted Buntings in their country, as they have succeeded with the bengals and widows; and it is likely that with the same attention they might be propagated in every part of Europe.—They are rather smaller than the house-sparrow.

Total length five inches and one-third; ~~alar~~ ~~extent~~ seven inches and two-thirds; the bill eight lines; the legs eight lines; the middle toe seven lines; the tail two inches, and stretches thirteen or fourteen lines beyond the wings*.

* They are very common in Louisiana, and are spread over all parts of America between Guiana and Canada. They build their nests among the oranges and citrons, and sing but very weakly.

VARIETY OF THE PAINTED BUNTING.

BIRD-FANCIERS are acquainted with a variety of this species, which is distinguished by the colour of the under part of its body being yellowish ; it has only a small red spot on the breast, which is lost in moulting ; then all the under part of the body is whitish, and the male much resembles the female. It is probably a variety produced in this climate*.

* This variety is found (though rarely) in Louisiana. Sonnini says, that of three hundred skins of painted Buntings sent from that country, there were only five or six of this variety. W.

THE BLUE-FACED BUNTING *.

THIS bird resembles the Painted Bunting so closely that if the one had not been sent from Louisiana, and the other from Java, I should have regarded them as of the same species. Nay, when we consider the uncertainty in most accounts of the climate of birds, we may still be disposed to assign them to the same place. The anterior part of the head and throat is of a fine blue; the fore-part of the ~~neck~~ of a fainter blue; the middle of the belly red; the breast, the flanks, the lower belly, the thighs, the inferior coverts of the tail and of the wings, of a beautiful rufous; the upper part of the head

* CHARACTER SPECIFICS.

EMBERIZA CYANOPIS. *E. viridis*, subtus dorso infimo uropygioque rufa, fronte genis gulaque cœruleis, tectricibus caudæ abdomineque medio rubris.—*Lath. Ind. Orn.* i. p. 417. No. 64.

EMBERIZA CYANOPIS.—*Gmel. Syst.* i. p. 886.

CHLORIS JAVENSIS.—*Bris.* iii. p. 198. 57. t. 7. f. 4.

LE TOUPET BLEU.—*Buff. par Sonn.* xlviii. p. 116.

BLUE-FACED BUNTING.—*Lath. Syn.* iii. p. 209. 56.

HABITAT

in Java.—4 pollices longus.

W.

and neck, the anterior part of the back, and the superior coverts of the wings, green; the lower part of the back and the rump of a bright rufous; the superior coverts of the tail red; the quills of the wings brown, edged with green; those of the tail the same, except the intermediate ones, which are edged with red; the bill is lead-colour; the legs grey:—the bird is somewhat smaller than the tree-sparrow.

Total length four inches; the bill six lines; the legs six lines and a half; the mid-toe seven lines; the alar extent near seven inches; the tail thirteen lines, composed of twelve quills, and stretching six or seven lines beyond the wings.

THE GREEN BUNTING *.

ALL our information with regard to this bird is derived from Aldrovandus; and that author only describes it from a coloured drawing brought into Italy, by some who had visited Japan, and who presented it to the Marquis Fachinetto.

All the upper part is green, and all the lower white; the quills of the tail and of the wings blue, with white borders; the bill of a greenish brown, and legs black. Though this bird is rather smaller than the greenfinch, and its bill and legs more slender, Aldrovandus was convinced that Aristotle himself could not hesitate in referring it to that species: this Brisson has done, and we have no reason to reject the arrangement.

* CHARACTER SPECIFICUS.

EMBERIZA VIRIDIS. *E. viridis, subtus alba, remigibus caudaque cœruleis.*—*Lath. Ind. Orn.* i. p. 417. No. 65.

EMBERIZA VIRIDIS.—*Gmel. Syst.* i. p. 886.

CHLORIS INDICA MINOR.—*Bris.* iii. p. 197. 56.

LE PAREMENT BLEU.—*Buff. par Sonn.* xlviii. p. 118.

GREEN BUNTING.—*Lath. Syn.* iii. p. 209. 507,

HABITAT

in India.

W.

THE YELLOW FINCH*.

Its bill and legs are brown; the upper part of the head and neck, the back, the tail, and wings, of a very deep green-brown; the rump, the throat, and all the lower part, yellow; the sides of the head varied with the two colours, so that the yellow descends a little on the sides of the neck.

The Indian greenfinch of Edwards may be regarded as a variety of this species; for all the upper part is of a brown-green, and the under part yellow: the only difference being, that the green is not so deep, and extends upon the rump; but the sides of the head have two bars

* CHARACTER SPECIFICUS.

FRINGILLA BUTYRACEA. *F. virens*, superciliis pectore abdomineque flavis, remigibus primoribus margine exteriori albis.—*Lath. Ind. Orn.* i. p. 455. No. 74.

FRINGILLA BUTYRACEA.—*Gmel. Syst.* i. p. 913.

CHLORIS INDICA.—*Bris.* iii. p. 195. 55.

LE VERD BRUNET.—*Buff. par Sonn.* xlviii. p. 120.

INDIAN GREENFINCH.—*Edw.* t. 84.

YELLOW FINCH.—*Lath. Syn.* iii. p. 299. 68. *Forst. Obs.* p. 26.

HABITAT

in Madeira, India, Capite Bonæ Spei.

W.

of the same colour, one of which stretches above the eye, and the other, which is shorter, and of a deeper shade, lies under the first; and that the great quills of the wings are edged with white. The Indian greenfinch is rather larger than the Canary finch, and, according to Edwards, its song is superior.

Total length four inches and a half; the bill four lines and a half; the tarsus six lines and a half; the mid-toe seven lines; the tail nineteen lines, somewhat forked, and extending nine or ten lines beyond the wings.

THE BAHAMA FINCH*.

EXCEPT the head, neck, and breast, which are black, all the rest of the plumage is green; we might call it a greenfinch with a black cowl. This bird is very common in the woods of the Bahama islands; it sings perched on the tops of bushes, and constantly repeats the notes of a chaffinch. It is about the size of the Canary finch.

Total length four inches; the bill four lines and a half; the tail nineteen lines, and extends nine or ten lines beyond the wings†.

* CHARACTER SPECIFICUS.

FRINGILLA BICOLOR. F. capite pectoreque nigris, dorso alis caudaque obscure virescentibus.—*Lath. Ind. Orn. i. p. 456. No. 75.*

FRINGILLA BICOLOR.—*Gmel. Syst. i. p. 927.*

CHLORIS BAHAMENSIS.—*Bris. iii. p. 202. 59.*

LE VERDINERE.—*Buff. par Sonn. xlviii. p. 123.*

BAHAMA FINCH.—*Arct. Zool. ii. No. 247.—Cat. Car. i. t. 37. Lath. Syn. iii. p. 300. 69.*

HABITAT

in Bahama insula et Jamaica, in quarum sylvis valde frequens. W.

† The Bahama Finch is found also in Jamaica: its plumage is subject to vary. W.

THE GEENISH FINCH *.

It has less green in its plumage than those of the preceding articles : its bill is shorter ; its orbits greenish-white ; all the feathers of the upper part of the body, including the middle quills of the wings, their coverts, and the quills of the tail, are of a brown-green, edged with a lighter colour ; the great quills of the wings ~~black~~ ; the throat and all the under part of the body, as far as the thighs, ~~of a dull ru-~~ fous, speckled with brown ; the lower belly and the inferior coverts of the tail are of a pretty pure white. This bird is found in St. Domingo.

* CHARACTER SPECIFICUS.

LOXIA DOMINICENSIS. L. viridi-fusca, subtus rufa fusco maculata, regione oculorum crissoque albis.—*Lath. Ind. Orn.* i. p. 383. No. 42.

LOXIA DOMINICENSIS.—*Gmel. Syst.* i. p. 855.

LE VERDERIN.—*Buff. Pl. Enl.* 341. f. 2.—*Buff. par Sonn.* xlviii. p. 125.

ST. DOMINGO GROSBEAK.—*Lath. Syn.* iii.⁹ p. 137. 39.

HABITAT

in insula Dominicensi.

W.

THE VARIED GREENFINCH*.

THIS bird has none of the green colour of the greenfinch, but is closely related to it in other respects. Its throat is white, the under part of the body of the same colour; the breast variegated with brown; the upper part of the head and body mottled with grey and greenish-brown; there is a rufous tinge on the termination of the back and on the superior coverts of the tail; the superior coverts of the wings of a deep rufous; the middle quills edged on the outside with that colour; the great quills and the great coverts edged with rusty white, and also the lateral quills of the tail; lastly, the most exterior of the latter is terminated by a

* CHARACTER SPECIFICUS.

LOXIA AFRICANA. L. viridi-fusco griseoque variegata, subtus alba, tectricibus alarum rufis, rectrice extrema macula alba.—*Lath. Ind. Orn.* i. p. 384. No. 43.

LOXIA AFRICANA.—*Gmel. Syst.* i. p. 856.

LE VERDIER SANS VERT.—*Buff. par Sonn.* xlviii. p. 127.

AFRICAN GROSBK.—*Lath. Syn.* iii. p. 137. 40.

HABITAT

in Africa,—6½ pollices longa.

W.

spot of the same white, and is shorter than the rest. Of all the quills of the wing, the second and third are the longest. •

This bird was brought from the Cape of Good Hope by Sonnerat.

Total length six inches and one-third; the bill six lines; the tarsus seven lines; the tail about two inches and a half, and extends sixteen lines beyond the wings.

THE GOLDFINCH*†.

BEAUTY of plumage, melody of song, sagacity, and docility, are united in this charming little bird, which, were it rare, and imported

* CHARACTER SPECIFICUS.

FRINGILLA CARDUELIS. F. remigibus antrorsum luteis, extima immaculata, rectricibus duabus extimis medio reliquisque apice albis.—*Lath. Ind. Orn.* i. p. 449. No. 58.
 FRINGILLA CARDUELIS.—*Gmel. Syst.* i. p. 903.—*Raii Syn.* p. 89. A. 1.—*Will.* p. 189. t. 46.—*Bris.* iii. p. 53. 1.
 LE CHARDONNERET.—*Buff. Pl. Enl.* t. 4. f. 1.—*Buff. par Sonn.* xviii. p. 153. pl. 113. f. 2.
 GOLDFINCH, or THISTLEFINCH.—*Br. Zool.* ii. No. 124.
 —*Arct. Zool.* ii. p. 283. II.—*Will. (Angl.)* p. 246. t. 46.—
 —*Lath. Syn.* iii. p. 281.—*Bew. Birds,* i. p. 169.

HABITAT

in Europa, Africa, Asia; in Anglia frequens.

† In Germany it is called *Stieglitz*, *Distel-Vogel*, *Kleiber*, *Truns*, *Roth-Vogel*; in Holland, *Pitter*; in Bohemia, *lick*; in Savoy, *Chardeaulat*; in Poland, *Szizigil*; in S. *Stiglitza*; in Italy, *Gardello*, *Gardellino*, *Cardelino*; in Spain, *Sirguero*, *Siele Colore*, *Farto Pintarillo*.

The Latin Epithet *Carduelis* is derived from *Cardus*, a thistle; and the French name *Chardonneret* is formed from *Chardon*, which also signifies a thistle. It is the *Θεαυρις* of Aristotle.



THE GOLDFINCH

from a foreign country, would be highly prized.

Crimson red, velvet black, white, and gold yellow, are the chief colours which glisten on its plumage; and the mixture of lighter and deeper tints still heightens their lustre. Hence its names in different languages: some allude to the yellow spot that decorates its wings*; some to the red which covers its head and throat†; some to the brilliancy of its colours‡; and others, to the effect of their variety§. When the wings are closed, each appears marked with a train of white points, which are apparent on the dark ground: these are the white specks which terminate all the quills of the wing, except the first two or three. The quills of the tail are of a still deeper black; the six intermediate ones tipped with white, and the last two have on each side on their inner webs an oval white spot, which is conspicuous. But these white points vary in their number and arrangement; and in general the plumage of the goldfinch is far from being constant||.

* *Χρυσομίλητος* (*Golden-mitred*); *Auricittis* (*with golden fillets*); *goldfinch*.

† *Roth-Vogel*, Ger. (i. e. *Red-bird*).

‡ *Ἀστέρης, ἀστρωλίνος* (from *ἀστὴρ*, a star)!

§ *Ποικίλις*, *varied* (*variegated*).

|| Sometimes six intermediate quills of the tail are tipped with white, sometimes eight of these, and sometimes only four, or even two: and the Goldfinches have received appellations accordingly. Nay, the difference observed in their song has

The female has less red than the male, and no black at all. The young ones do not assume their fine red till the second year: they are at first stained with dirty obscure colours, and, for that reason, they are called *Grisets*; but the yellow on the wings appears early, and also the white spots on the quills of the tail; yet these spots are of a duller white*.

The males have a well-known and a pleasant warble. They begin about the 1st of March, and continue during the whole of the genial season: they chant even in the winter when kept in warm apartments, where they enjoy the temperature of spring†. *Aldrovandus*

been attributed to the number of the small spots. Those which have six feathers tipped with white are said to warble the sweetest; but this assertion is without foundation, for the number is often diminished by moulting, though the song remains invariably the same. Kramer says, that the quills of the tail and of the wings are tipped with white in autumn, and are entirely black in spring: this needs to be qualified. I have beside me at present (6th April) two cock Goldfinches, in which all the wing-quills except the first two and the six intermediate ones of the tail, are tipped with white; and in which are also the oval spots on the inner-side of the two lateral quills of the tail.

* Observed before the 15th June. I have also remarked, that when the Goldfinches were quite young, their bill was brown, except the point and edges, which were whitish and transparent; which is the reverse of their appearance when adult.

† I have two which sang every day through the whole of this winter, kept in a close chamber, but without any fire. The greatest cold has not indeed been under eight degrees (fifty degrees Fahrenheit).

ranks them the second of the singing birds: Daines Barrington admits them only into the sixth place. They seem to have a greater facility in acquiring the song of the wren than that of any other bird*. This has been experienced both by Salerne and Barrington. The latter indeed supposes, that this imitation was occasioned by the early impressions made by the notes of that little bird; but we must either account in the same way for the case noticed by Salerne, or admit that there is a certain analogy between the organs of sound in the Goldfinch and the wren.

In England, the Goldfinches from Kent are reckoned the best singers.

These birds and the chaffinches construct the neatest and most compact nests. They consist of fine moss, lichens, liver-wort, rushes, small roots, and the down of thistles, interwoven with great art, and lined with dry grass, hair, wool, and down: they generally place them in trees, and particularly on plums and walnuts, and commonly select the weak branches which shake the most. Sometimes they nestle in copses, and sometimes in thorny bushes; and it is said that the young Goldfinches bred in such situations are of a darker

* *Philos. Trans.* 1773. Olina says, that the young Goldfinches which bear linnets, canaries, &c. acquire their song. But I know of a young cock Goldfinch and a young hen linnet that were bred together; and the Goldfinch retained his native warble, while the linnet adopted and improved it.

plumage, but more sprightly, and sing better than others. Olin makes the same remark in regard to those hatched in the month of August. The female begins to lay about the middle of spring, at first, five eggs, spotted with reddish-brown near the large end*. If the nest be demolished, she makes a second or even a third hatch, but the number of eggs diminishes each time. I have never found more than four eggs in the nests brought to me in July, nor more than two in those of September†.

* Belon says, that the Goldfinches have commonly eight young; but I have never found more than five eggs in about thirty nests which I have seen.

† The attachment of the female, says Sonnini, for its young is so strong, that nothing can divert her from the duties of incubation. The public prints of the year 1787 have recorded an admirable example of the courageous constancy of one of these little birds. In the neighbourhood of Mayenne there arose a violent storm, accompanied with such hail as entirely destroyed the crops of the farmer: it broke the windows and tiles, and knocked down quadrupeds and birds, which, when the storm was over, were found dead in the fields. In the midst of this scene of destruction and terror, a Goldfinch, which had its nest in a garden, struck, and entirely stript of its feathers by the hail, remained upon her eggs, which she guarded from the storm; and which were near being hatched. Her sufferings, the imminent danger of losing her life, and the terrible confusion which surrounded, gave way to her tenderness and maternal affection. This interesting bird was observed to content herself with repairing her broken nest in a very slight manner, that she might not, by attending to her own comfort, neglect her eggs.

These birds are much attached to their young; they feed them with caterpillars and insects: if both be caught together and shut up in the same cage, the parents will still continue their care. It is true, that of four young Goldfinches which I treated this way, none lived more than a month; but I attribute this to the improper choice of food, and not to the heroic despair which, it is pretended, prompts them to kill their offspring, and thus deliver them from slavery*.

The cock Goldfinch ought to have only one female, and, that their union may be productive, both should be at liberty. It is somewhat singular, that the cock Goldfinch, when shut in a volery, is not so much disposed to pair with his own female as with the hen Canary†, or any other female of a warm temperament.

* Gerini, and many others. It is even added, that if the young ones be reared in a cage by parents which are suffered to enjoy freedom, these observing after some time the impossibility of rescuing their brood from bondage, will out of compassion poison them with a certain herb. Such fables need no refutation.

† It is said that the Goldfinches intermix with none of a different species; and that the experiment has been made without success in regard to the linnets. But I confidently affirm, that with proper care we may obtain not only this, but many other combinations: for the siskins are still more easily reconciled to the society of the Canaries than the Goldfinches, and yet it is said that, in case of rivalship, the Goldfinches are preferred by the hen Canaries.

Sometimes the hen Goldfinch breeds with the cock Canary, but this is unfrequent * ; and on the other hand, the 'hen Canary, if separated from the males, will consort with the cock Goldfinch †. The female is the first to feel the ardour of passion, and endeavours, by all alluring arts, and assisted by the still more powerful influence of the genial season, to urge her languid paramour to consummate this physical adultery : and yet there must be no female of his own species in the volery. The preliminaries last commonly six weeks, during which time the hen Canary makes a complete laying of addle eggs, for which her incessant solicitations have not procured fecundation; what in animals may be termed lust, is almost always subordinate to the great end of nature, the reproduction of the species. Father Bougot, whom I have already quoted with approbation, has observed with attention the little manœuvres of the variegated female Canary in such situa-

* Father Bougot let a cock and hen Goldfinch into a volery where there was a great number of Canaries of both sexes. The male Canaries copulated with the hen Goldfinch, while the cock Goldfinch had no partner: which proves the ardour of the Canaries.

† This circumstance is essential; for Father Bougot assures me, that if the female Canaries have a fourth or even a sixth of their number of males, they will not associate with the cock Goldfinch ; and that it is only when neglected by their own species that they join the stranger, in which case they always make the first advances.

tions: she often approached the male Goldfinch, and squatted like a common hen, but with more expression, to invite him to the fruition: at first he is deaf to her solicitations, but the flame steals upon him by degrees*: often he begins the embrace, and his resolution as often fails; at each attempt he spreads his wings and gives vent to feeble cries. However, after the union is accomplished, he proceeds to discharge the duties of a parent; he assists his mate in constructing the nest†, and carries food to her while she is engaged in hatching, or in rearing her young.

Though these constrained amours will sometimes succeed with a hen Canary and a wild Goldfinch, it is better to raise together those intended for breeding, and not to pair them till they are two years old. The offspring resembles more the father in the shape of the bill, in the colours of the head and of the wings, and in short in all the entremities, and the mother in the rest of the body: they have also been remarked to be stronger, and live longer; and to have a clearer natural warble, but to be not so docile in adopting the notes of our artificial music.

* I have heard it alleged that the Goldfinch was a cold bird; he may be so in comparison of the Canaries, but after he is roused, he appears much animated; the male has frequently been observed to drop in an epileptic fit, while he chanted rapturously in the height of his passion.

† They prefer moss and dry grass for the materials.

These hybrids are still capable of propagating, and when they are paired with the hen Canary, the second generation has a manifest analogy to the species of the Goldfinch*; so much does the male influence predominate in the act of generation.

The Goldfinch flies low, but with an even continued motion, like the linnet; and not by jerks and bounds, like the sparrow. It is an active and laborious bird; if not employed in pecking the heads of poppies, of hemp, or of thistles, it is constantly busy in carrying backwards and forwards whatever it can find in its cage. One solitary male of this species is sufficient to disturb a whole volery of Canaries; it teazes the females while they are sitting, fights with their males, tears away the nests, and breaks the eggs. We should hardly conceive that birds so lively and petulant could be so gentle and even so docile. They live in harmony with each other, seek each other's society, give marks of regard at all seasons, and seldom quarrel but about their food. They are not so peaceful with other birds; they beat the Canaries and Linnets, but, in their turn, they receive the same treatment from the titmouse. They have a singular instinct of always choosing to sleep in the highest part of the volery; and we may naturally suppose a ground of

* Hebert.

quarrel will be afforded, when the other birds will not give place to them.

The docility of the Goldfinches is well known: they can be instructed without much trouble to perform several movements with accuracy, to fire a cracker, and to draw up small cups containing their food and drink; but for this last purpose they must be *clothed*. This clothing consists of a small belt of soft leather two lines broad, with four holes through which the feet and wings are passed, and the ends joining under the belly, are held by a ring which supports the chain of the cup. In solitude it delights to view its image in the mirror, fancying it sees another of its own species; and this attachment to society seems to equal the cravings of nature; for often it is observed to pick up the hemp-seed, grain by grain, and advance to eat at the mirror, imagining, no doubt, that it feeds in company.

To succeed in breeding Goldfinches, they ought to be separated and raised singly, or at least each with the female with which it is intended to be paired.

The younger Madame Daubenton educated a whole hatch; the young Goldfinches became tame at a certain age, and afterwards relapsed into the same savage state in which they would be found if bred by their parents in the field: they renounce the refinements of man to enjoy the society of their fellows.—But this is not the only inconvenience of training them to-

gether; they acquire an affection for each other, and when separated, to pair with a female Canary, they are languid in their amours, are affected by the tender remembrance of former friendships, and commonly die of melancholy*.

The Goldfinches begin to assemble in autumn, and during that season they are caught among the birds of passage which pillage our gardens. Their natural vivacity precipitates them into the snares; but to succeed well, it is necessary to have a male that has been accustomed to sing. They are not caught by calls; and they elude the bird of prey by taking shelter among the bushes. In winter they fly in numerous flocks, so that seven or eight may be killed at a shot; they approach the highways near which are thistles and wild succory; they shake off the snow to obtain the seeds and the caterpillars. In Provence they lodge in great numbers among the almond-trees; when the cold is intense they seek the cover of thick bushes, and always near their proper food. Those kept in the cage are commonly fed with hemp-seed†. They live to a great age; Gesner

* Of five Goldfinches bred in the volery of this lady, and paired with hen Canaries, three remained inactive: the other two copulated, but broke the eggs, and died soon afterwards.

† Though it is true in general that the granivorous birds live upon seeds, they also eat caterpillars, small grubs and insects, and even feed their young with the last: they also devour with great avidity small rags of boiled veal; but such as are reared prefer in the end hemp and rape-seed to every other aliment.

saw one at Mayence which was twenty-three years old; they were obliged once a week to scrape its nails and bill, that it might drink, eat, and sit upon its bar; its common food was poppy-seeds; its feathers were all turned white; it could not fly, but remained in whatever situation it was placed. In the country where I reside it sometimes lives sixteen or eighteen years.

They are subject to epilepsy, as I have already observed*, and to melting of the fat; and the moulting often proves fatal to them.

Their tongue is parted at the tip into small filaments; the bill long, the edges of the lower mandible fitted into the upper; the nostrils covered with small black feathers; the outer toe connected to the middle one as far as the first joint; the intestinal canal a foot long; slight traces of a *cæcum*; a gall bladder; and a muscular gizzard.

Total length of the bird five inches and some lines; the bill six lines; the alar extent eight or nine inches; the tail two inches, and consists of twelve quills; it is a little forked, and projects ten or twelve lines beyond the wings††.

* Owing, it is said, to a long slender worm which creeps under the flesh in the thigh, and sometimes pierces through the skin, but which the bird eradicates with its bill. I doubt not the existence of these worms, which Frisch mentions; but I suspect that they are not the cause of the epilepsy.

† The young Goldfinches are not so long in proportion.

‡ The shoulders of the male are black, those of the female

cinereous ; in the former the feathers at the base of the bill are black, in the latter they are brown. The young bird is grey-headed, and thence named by the bird-catchers a *grey pate*. The egg is pearly, with scattered bloody and blackish spots.

The Goldfinch is spread over almost the whole of Europe, and in some parts of Asia and Africa. Sonnini saw it in Greece, where it is called *Karedrino*.

VARIETIES of the GOLDFINCH.

THOUGH the Goldfinch when kept in the cage does not so soon lose its red tinge as the linnet, yet, like all the domesticated birds, it is subject to frequent and material alterations in its plumage. I have already noticed the varieties of age and sex, and also the numerous differences that occur between individuals, in regard to the number and distribution of the small white spots of the tail and of the wings, and also with respect to the lighter or darker brown cast of the plumage. I shall here consider only the principal varieties which I have examined myself, or which have been described by others, and which appear to me as derived from accidental causes.

I. The YELLOW - BREASTED GOLD-FINCH. It is not unfrequent to see Goldfinches which have the sides of their breast yellow, and the ring on their bill and their wing-quills of a lighter black. It has been supposed that they sing better than the others ; it is certain that in the female the sides of the breast are yellow as in the male.

II. The GOLDFINCH with WHITE EYEBROWS and FOREHEAD *. What is commonly red about the bill, and the eyes, in birds of this kind, was white in the present. Aldrovandus mentions no other difference. I have seen a Goldfinch in which the part of the head usually black was white.

III. The GOLDFINCH whose HEAD is striped with RED and YELLOW †. It was found in America, but probably carried thither. I have remarked in several Goldfinches, that the red of the head and throat was variegated with shades of yellow, and also with the blackish colour of the ground of the feathers, which in some parts gave a dark cast to the brilliant colours of the surface.

IV. The BLACK - HOODED GOLDFINCH ‡. The red peculiar to the Goldfinch is also found in this variety, but in small spots sprinkled on the forehead. Its wings and tail are also as usual; but the back and breast are of a yellowish-brown; the belly and thighs of a pure white, the iris yellowish, and the bill and legs flesh-coloured.

- * *Fringilla Carduelis*, var. 1.—*Linn.*
Carduelis Leucocephalos.—*Bris.*
- † *Fringilla Carduelis*, var. 2.—*Linn.*
Carduelis Capite Striato.—*Bris.*
- ‡ *Fringilla Carduelis*, var. 3.—*Linn.*
Carduelis Melanocephalos.—*Bris.*
- The Swallow Goldfinch,—*Alb. and Lai*

Albin was informed by a *person of credit*, that this individual was bred by a female Goldfinch with a male lark. But a single testimony is not sufficient to support such an assertion; Albin adds by way of confirmation, that it bore some resemblance to the lark in its song and its habits.

V. The WHITISH GOLDFINCH *. If we except the upper part of the head and the neck, which were of a fine red, as in the common Goldfinch, the tail, which was ash-brown, the wings, which were the same, with a bar of dirty yellow, the plumage of this bird was whitish.

VI. The WHITE GOLDFINCH †. That of Aldrovandus was, like the common kind, marked with red on the head, and some of the wing-feathers were edged with yellow; all the rest were white.

That of Abbé Aubry had a yellow tinge on the superior coverts of the wings, some of the middle quills black through their outer half, and tipped with white; the legs and nails white, the bill of the same colour, but blackish near the end.

* *Eringilla Carduelis*, var. 4.—*Linn.*

Carduelis Albida.—*Bris.*

† *Fringilla Carduelis*, var. 5.—*Linn.*

Carduelis Candida.—*Bris.*

I saw one at Baron de Goula's, of which the throat and forehead were of a faint red, the rest of the head blackish; all the under part of the body white, slightly stained with ash-grey, but purer immediately under the red of the throat, and which rose as far as the blackish head; its wings yellow, as in the common Goldfinch; the superior coverts olive; the rest of the wings white, with a cinereous cast on the quills nearest the body; the tail nearly of the same white; the bill of a rose-white, and very long; the legs flesh-coloured. This variety is the more remarkable, being the production of nature; it was caught full grown in the fields.

Gesner was told that Goldfinches are found entirely white in the country of the Grisons.

VII. The BLACK GOLDFINCH *. Several have been seen of that colour. That of Aspernacz, mentioned by Anderson, grew quite black, after being long kept in a cage.—An instance precisely the same happened in the town where I live.

In the one described by Brisson, four quills of the wings, from the fourth to the seventh inclusive, were edged with a fine sulphur-colour on the outside, and white on the inside; the interior of the middle quills was also white, and one of them was tipped with the same colour;

* *Fringilla Carduelis*, var 6.—*Lin.*
Carduelis Nigra.—*Bris*

lastly, the bill, the legs, and the nails, were whitish.—But it is obvious that description presents only one view of a fleeting existence; the object of a general history is to trace the gradation of appearances, and to connect the individual with the species.

There are at present two Black Goldfinches at Beaune, of which I have obtained some information. They are two males, the one four years old, and the other of a greater age; each has undergone three moultings, and has as often recovered its beautiful colours: at the fourth moulting both have become of a pure glossy black; they have retained this colour about eight months, but it appears not more constant than the first, for now (March the twenty-fifth) they begin to perceive grey on the belly of one of these birds, red on the head, rufous on the back, yellow on the quills of the wings, and white at their tips and on the bill. It would be curious to discover how these changes of colours are effected, by the food, the air, the temperature, &c. It is known that the Goldfinch which Klein electrified, lost entirely in the course of six months not only the red on its head, but the fine lemon spot on its wings.

VIII. The ORANGE-HEADED BLACK GOLDFINCH*. Aldrovandus found this bird

- * *Fringilla Carduelis*, var. 7.—*Linn.*
Carduelis Nigra Icterocephalos.—*Bris.*
Carduelis Congener.—*Ray and Will.*

to be so different from the common Goldfinch, that he regarded it as of another species belonging to the same genus; it was as large as the Chaffinch; its eyes were proportionally larger; the upper part of its body was blackish, the head of the same colour, except that the anterior part near the bill was encircled by a ring of vivid orange; the breast, and the superior coverts of the wings, of a greenish-black; the outer edge of the wing-quills the same, with a bar of faint yellow, and not of a fine lemon, as in the Goldfinch; the rest of the quills black, variegated with white; those of the tail black, the outermost one edged interiorly with white; the belly cinereous brown.

This variety of colour was not owing to the effects of confinement. The bird was caught near Ferrara, and sent to Aldrovandus.

‘IX. The HYBRID GOLDFINCH*. Many of these have been observed, and it would be tedious and unnecessary to describe them all. We may assert in general that, as in the mule quadrupeds, they resemble the father most in the extremities, and the mother in the rest of the body. But these are not real Hybrids, for they are bred between congenerous birds, such as canaries, goldfinches, greenfinches, siskins, yellow buntings, and linnets; and they are ca-

* *Fringilla Carduelis*, var. 8.—*Linn.*

Carduelis Hybrida.—*Bris.*

The Canary Goldfinch.—*Alb. and Lath.*

pable of propagation: nay, the breed seems to be improved by crossing, for they are larger, stronger, and have clearer voices, &c. One effect of this intermixture is a multiplication of the pretended species. I shall give an example in the siskin.

The hybrid of Albin was obtained from a cock goldfinch, separated in its tender age from the mother, and a hen Canary. It had the head, the back, and the wings, of the goldfinch, but with a slighter tinge; the under part of the body, and the quills of the tail, yellow, the last tip with white. I have seen some whose head and neck were orange; it seemed that the red of the male was melted into the yellow of the female.

THE LULEAN FINCH

THE most remarkable property of this bird is, that the wings, which are rufous-coloured at the base, are marked with four transverse rays of different colours, and in this order, black, rust, black, white. The head, and all the upper part of the body as far as the end of the tail, are of a dull cinereous; the quills of the wings blackish; the throat white; the belly whitish, and the bill brown. This bird is found in the tract situated on the west of the gulph of Bothnia, near Lulea.

* CHARACTER SPECIFICUS.

FRINGILLA LULENSIS. F. fusca, pectore humerisque rufis, alis nigris macula rufa, collo corporeque subtus albis.—*Lath. Ind. Orn.* i. p. 452. No. 63.

FRINGILLA LULENSIS.—*Gmel. Syst.* i. p. 902.

CARDUELIS SUECICA.—*Bris.* iii. p. 63. 2.

LE CHARPONNERET à QUATRE RAIES.—*Buff. par. Sonn.* xviii. p. 169.

LULEAN FINCH.—*Arct. Zool.* ii. p. 380. B.—*Lath. Syst.* iii. p. 278. 56.

HABITAT

in Suecica.

W.

FOREIGN BIRDS

THAT ARE RELATED TO THE GOLDFINCHES.

I.

THE GREEN GOLDFINCH, or the MARACAXAO*.

EDWARDS first figured and described this bird, which he tells us came from Brazil.—In the male the bill, the throat, and the anterior part of the head are of a red more or less bright, ex-

* CHARACTER SPECIFICUS.

FRINGILLA MELBA. F. viridis, facie caudaque rubris, abdomine albo nigroque undulato.—*Lath. Ind. Orn.* i. p. 451. No. 59.

FRINGILLA MELBA.—*Osborn. Voy.* ii. p. 329.—*Gmel. Syst.* i. p. 904.

CARDUELIS VIRIDIS.—*Bris. App.* p. 70.

LE MARACAXAO.—*Buff. par Sonn.* xlviii. p. 171.

GREEN GOLDFINCH.—*Edw. t.* 272. (mas.) 128. (femina.)
—*Lath. Syn.* iii. p. 286. 52.

HABITAT

in China, Brasilia.

cept a small space between the bill and the eye, which is blueish; the hind-part of the head and neck, and the back, yellowish-green; the superior coverts of the wings, and their middle quills, greenish, edged with red; the great quills almost black; the tail, and its superior coverts, of a bright red; the inferior coverts ash-grey; all the under part of the body striped transversely with brown on a ground which is olive-green on the breast, and continually grows fainter till it becomes entirely white under the belly. This bird is about the size of the common Goldfinch; its bill is of the same shape, and its legs grey.

The female differs from the male, its bill being of a yellow flesh-colour: the upper part of its head and neck cinereous; the base of the wings and the rump yellowish-green, and so is the back, without any tint of red; the quills of the tail brown, edged exteriorly with red wine-colour; the inferior coverts white, and the legs flesh-coloured.

II.

THE YELLOW GOLDFINCH*.

All those who have mentioned this bird give it the appellation of American Goldfinch; yet this term would not be proper till it was ascertained that no other Goldfinch existed in the New World, and this supposition is not only improbable, but absolutely false, for that of the preceding article is a native of Brazil; I have therefore adopted another denomination, which characterises its plumage. The bill is nearly of the same shape and colour as the common Goldfinch; the forehead black, which is peculiar to the male; the rest of the head, the neck, the back, and the breast, shining yellow; the

* CHARACTER SPECIFICUS.

FRINGILLA TRISTIS. F. flava, fronte nigra, alis fuscis.—

Lath. Ind. Orn. i. p. 452. No. 64.

FRINGILLA TRISTIS.—*Gmel. Syst.* i. p. 907.

CARDUELIS AMERICANA.—*Bris.* iii. p. 64. 3.

LE CHARDONNET JAUNE.—*Buff. Pl. Enl.* 202. f. 2.—

Buff. par Sonn. xlviii. p. 174.

GREEN SPARROW.—*Bancr. Guian.* p. 181 1 (femina.)

AMERICAN GOLDFINCH.—*Arct. Zool.* ii. No. 242.—*Edw.*

t. 274.—*Lath. Syn.* iii. p. 288. 57.—*Id. Sup.* p. 166.

HABITAT

in America.—4½ pollices longa.

W.

thighs, the lower belly, the superior and inferior coverts of the tail, yellowish-white; the small coverts of the wings yellow on the outside, whitish on the inside, and tipped with white; the great coverts black, and terminated with white slightly shaded with brown, which form two transverse rays that are very apparent on the black wings; the middle quills of these are tipped with white; those contiguous to the back and their coverts are edged with yellow; the quills of the tail amount to twelve, are of equal lengths, black above and equal below; the lateral ones white on the inside near the tip; the bill and legs flesh-coloured.

In the female the forehead is not black, but of an olive-green; and all the upper part of the body is of the same colour; the yellow of the rump, and of the under part of the body, is less brilliant; the black on the wings more dilute, and on the contrary the transverse rays are not so faint; lastly, the belly, and the inferior coverts of the tail, are entirely white.

The young male is distinguished from the female by nothing but its black forehead.

The female observed by Edwards, was shut up alone in a cage, and yet layed, in the month of August, 1755, a small egg of pearl-grey, and without spots; but, what is more uncommon, Edwards adds, that it moulted regularly twice a-year, in March and September. In winter the body was entirely brown; but the head, wings, and tail, retained that colour only in summer,

The male died too soon for this observation; but probably, like the female, it would have dropt its feathers twice annually, and in that respect resemble the bengals, the widow-birds, and many other natives of warm climates.

In the subject observed by Brisson, the belly, the loins, the inferior coverts of the tail, and of the wings, were of the same yellow with the rest of the body; the superior coverts of the tail white-grey; the bill, the legs, and the nails, white: but most of these differences may be owing to the different states in which the bird has been examined. Edwards drew it from the life, and his specimen appears besides to have been larger than that of Brisson.

Catesby tells us that it is very rare in Carolina, more frequent in Virginia, and very common in New York. The one figured in the *Pl. Enl.* was brought from Canada, where Father Charlevoix saw several of that species.

Total length four inches and one-third; the bill five or six lines; the tarsus the same; the alar extent seven lines and one-fourth; the tail eighteen lines, consisting of twelve equal quills, and stretching six lines beyond the wings.

THE LESSER REDPOLL *†.

BRISSON calls this bird the little vine linnet: but it appears to resemble the siskin, and

* CHARACTER SPECIFICUS.

FRINGILLA LINARIA. F. fusco griseoque varia, subtus albo-rufescens, fascia alarum duplici albida, vertice pectoreque rubris.—*Lath. Ind. Orn.* i. p. 458. No. 83.

FRINGILLA LINARIA.—*Gmel. Syst.* i. p. 917.

LINARIA RUBRA MINOR.—*Raii Syn.* p. 91. A. 3.—*Will.* p. 191. t. 48.—*Bris.* iii. p. 138. 31.

LE SIZERIN.—*Pl. Enl.* 151. f. 2.—*Buff. par Sonn.* xlviii. p. 184. pl. 113. fig. 1.

LESSER RED-HEADED LINNET, or REDPOLL.—*Br. Zool.* No. 132. t. 54.—*Phil. Trans.* lxii. p. 405.—*Arct. Zool.* ii. No. 262.—*Will. (Angl.)* p. 260. t. 46.—*Lath. Syn.* iii. p. 305. 75.—*Id. Sup.* p. 167.—*Bew. Birds,* i. p. 179.

HABITAT

in Europa, America, Groenlandia.—5 pollices longa.—In Angliæ borealibus nidificat. W.

† In German, Zitzcherlein, Meer-Zeislein, Stock-hensling, (Stick Linnet), and Roth-plattige hensling (Red Plated Linnet); in Swiss, Schoperle; in Prussian, Tchetzke; in Swedish, Gräpsiska; the Greek name is *Avyθoc*.

its song is much inferior to that of the linnet. Gesner tells us, that at Nuremberg it has the name of *Tschilt-Scherle*, on account of its sharp cry; he adds, that it appears only once in five or seven years*, like the Bohemian chatterers, and arrives in immense flocks. We learn from the relations of voyagers, that it sometimes pushes its excursions as far as Greenland†‡.

* Whatever is uncommon turns into the marvellous. Some say that the appearance of numerous flocks of the Lesser Redpolls forebodes a plague; others, that they are rats metamorphosed into birds before the winter, and resume their proper form in the spring. In this way it is accounted for their not being found in summer.—SCHWENCKFELD.

† “Another bird appears in Greenland in the summer, which resembles the linnet, though smaller: it is distinguished by its head, which is partly red as blood; it may be fed with oatmeal in winter. . . . Sometimes whole flocks of these birds alight on board, like clouds driven by the wind, when a vessel is eighty or a hundred leagues from land. They have a pleasant song.”—*Continuation de l’Hist. des Voy.* May not those be the same birds which the Chinese breed in cages to fight? “These birds resemble linnets, and as they perform distant journeys, it will be the less surprising to find them in a country so remote?”—NAVARETTE.

‡ Fabricius observed the Redpolls in Greenland, where great numbers of them inhabit the bushy swamps. They leave that cold and foggy country in October, and return in April. In May they build their nest among the branches of the shrubs, and form it of three different beds: the first, which is the thickest, is composed of dry herbs, intermixed with small branches; the middle bed is a mixture of feathers and moss; the interior is formed of the down of the *Eriophorum vaginatum*, Linn. on which the female deposits five eggs, of a greenish-white, spotted, near the great end, with red.

W.

Frisch informs us, that in Germany it arrives in October and November, and departs in February.

I have said that it bears more analogy to the siskin than to the linnet; this was the opinion of Gesner, and it is also that of Dr. Lottinger, who is well acquainted with these little birds. Frisch goes farther, for he asserts that the siskin will serve for a call to allure the Lesser Redpolls into snares in the time of passage, and that the two species intermix and propagate with each other. Aldrovandus perceived a strong likeness between the Lesser Redpoll and the goldfinch, which, except its red head, resembles much a siskin. A bird-catcher of great experience and little reading, told me that he had caught many of the Lesser Redpolls intermixed with siskins, which they were very like, especially the females, only their plumage was darker, and their bill shorter. Lastly, Linnæus says, that the Lesser Redpolls frequent places covered with alders, and Schwenckfeld reckons the seeds of these trees among the aliments which they prefer; but the siskins are extremely fond of these seeds. The Lesser Redpolls eat not rapeseed like the linnet, but hemp-seed, the seed of speckled nettles, of thistles, of flax, of poppies, and crop the buds of young branches of oak, &c.: they mix readily with other birds: they are particularly tame in winter, and will then allow us to approach very near them without being

scared *. In general, they have little timidity, and can easily be caught with lime-twigs.

The Lesser Redpoll frequents the woods, and often lodges in the oaks: it creeps along the trunk like the titmouse, and also clings to the extremity of the small branches. Hence probably is derived the name of *Linaria Truncalis* †, and perhaps that of Little Oak.

The Lesser Redpolls grow very fat, and are excellent eating. Schwenckfeld says, that they have a craw like the poultry, distinct from the small sac, formed by the dilatation of the *œsophagus* before its insertion into the gizzard: this gizzard is muscular, as is that of all the granivorous tribe, and many pebbles are found in it.

In the male, the breast and the top of the head are red, and there are two white transverse stripes on the wings; the rest of the head, and all the upper part of the body, mixed with brown and light rufous; the throat brown; the belly, and the inferior coverts of the tail and wings, rusty white; their quills brown, with a complete border of a more delicate colour; the bill yellowish, but brown near the tip; the legs brown. Those observed by Schwenckfeld had cinereous backs.

In the female, there is no red except on the head, and it is besides less bright. * *Linnaeus* ex-

* These remarks are Lottinger's. Schwenckfeld relates, that a prodigious number of the Lesser Redpolls were caught in the beginning of winter, A. D. 1602.

† i. e. Trunk Linnet.

cludes it entirely; but perhaps the one which he examined had been kept long in the cage.

Klein relates that having electrified in the spring one of these birds, and a goldfinch, without occasioning to them any sensible injury, they both died the following October the same night: but what deserves to be noticed is, that both had entirely lost their red tinge.

Total length above five inches; the alar extent eight inches and a half; the bill five or six lines; the tail two inches and a half, and somewhat forked, contains twelve quills, and projects more than an inch beyond the wings*.

* It inhabits the whole extent of Europe, from Italy to the utmost verge of the Russian empire: it is also found in the north of Asia and America. It is only half the size of the Greater Redpoll. It builds its nest among the alders, employing for that purpose small sticks and wool, and lining it with hairs and down. It lays four eggs of a light sea-green colour, marked at the large end with reddish points.—It breeds in the north of England, and resorts in flocks to the southern counties in winter; and in that season it feeds principally on alder-seeds.

In the female the spot on the head is saffron-coloured, and not red.

THE SISKIN * †.

Of all the granivorous birds, the goldfinch is reckoned the nearest to the Siskin; both have the bill elongated and slender near the point; both are gentle, docile, and lively.

* CHARACTER SPECIFICUS.

FRINGILLA SPINUS. F. remigibus medio luteis, primis quatuor immaculatis, rectricibus basi flavis apice nigris.

—*Lath. Ind. Orn.* i. p. 452. No. 65. •

FRINGILLA SPINUS.—*Gmel. Syst.* i. p. 914.

LIGURINUS.—*Raii Syn.* p. 9. A. 5.—*Will.* p. 192. t. 46.

—*Bris.* iii. p. 65.

LE TARIN.—*Buff. Pl. Enl.* 485. f. 3.—*Buff. par Sonn.* xlviii. p. 192. pl. 113. fig. 3.

SISKIN, or ABERDEVINE.—*Br. Zool.* No. 129. t. 53.—

Arct. Zool. ii. No. 243.—*Id.* p. 383. I.—*Lath. Syn.* iii.

p. 289. 53.—*Id. Sup.* p. 166.—*Bew. Birds,* i. p. 171.

HABITAT

in Europa; per hyemem in Anglia frequens in alnetis. W.

† In German, *Zinsel*, *Zyschen*, *Zeislein*, *Engelchen*, *Zizing*, *Grüne Henfling* (Green Linnet); in Italian, *Lugaro*, *Lugarino*, *Luganello*, *Lucurino*; in Polish, *Czizeck*; in Turkish, *Utlugan*; in Swedish, *Siska*, *Green Siska*; in Greek, *Σπινος*, *Ακανθίς*, *Θεραυπίς*; in Latin, *Spinus*, *Acanthis*, *Thraupis*, and *Ligurinus*, from *λυγυς*, on account of the shrillness of its notes.

The fruits of their intermixture are also fit to propagate.—Some naturalists have been induced by these analogies, to regard them as two contiguous species belonging to the same genus: indeed all the granivorous birds may be classed together; for their cross-breed are prolific. Since this general character extends to them all, it becomes the more necessary to select the distinguishing features, and to trace the precise boundaries of each species.

The Siskin is smaller than the goldfinch; its bill is proportionally shorter, and its plumage is entirely different: its head is not red, but black; its throat brown; the fore-part of its neck, its breast, and the lateral quills of its tail, yellow; the belly yellowish-white; the under part of the body olive-green, speckled with black, which assumes a yellow cast on the rump, and still more yellow on the superior coverts of the tail.

But in the more intimate qualities, which result directly from organization or instinct, the differences are still greater. The Siskin has a song peculiar to itself, and much inferior to that of the goldfinch; it is very fond of alder-seeds, which the goldfinch will never touch; and the Siskin, in its turn, is indifferent about thistle-seeds; it creeps along the branches, and suspends itself from their extremity, like the titmouse:—in short, we might regard it as an intermediate species to

the titmouse and goldfinch. Besides, it is a bird of passage, and in its migrations it flies at a great height, and is heard before it can be seen; whereas the Goldfinch continues with us the whole year, and never flies very high: lastly, these two birds are never observed to associate together.

The Siskin can be taught like the goldfinch, to draw up the little bucket: it is equally docile, and though not so active, it is more cheerful; for it begins always the earliest in the morning to warble, and to rouse the other birds. But, as it has an unsuspicious temper, it is easily decoyed into all sorts of snares, traps, springs, &c. and it is more easily trained than any other bird caught in the adult state. We need only to offer it habitually the proper sort of food in the hand, and it will soon become as tame as the most familiar canary. We may even accustom it to perch upon the hand at the sound of a bell; for if at first we ring at each meal, the subtle association of perceptions, which obtains also among the animals, will afterwards rouse it to the call. Though the Siskin appears to select its food with care, it consumes much; but its voracious appetite is subordinate to a noble passion: it has always in the volery some favourite of its own species, or if that is not to be obtained, a bird of another species, which it cherishes and feeds with the fondness of a parent.—It drinks

often *, but seldom bathes ; it only approaches the margin of the water and dips its bill and breast, without much fluttering, except perhaps in hot weather.

It is said that it breeds on the islands in the Rhine, in Franche-comté, in Switzerland, Greece, and Hungary, and that it prefers the mountain forests. Its nest is very difficult to discover †, which has given rise to a vulgar opinion, that the Siskin renders it invisible with a certain stone. Accordingly, our accounts are imperfect in regard to that subject : Frisch says that it conceals its nest in holes ; Cramer supposes the bird covers it with leaves, which is the reason that it is never

* The bird-catchers lay lime twigs at the sides of brooks, and are very successful in the capture.

† “The bird-catchers in Orleans,” says Salerne, “agree that the discovery of a Siskin’s nest is a thing quite unheard of. It is probable, however, that some continue in the country, and breed near the banks of the Loiret, among the alders, of which they are very fond ; and the more so as young ones are sometimes caught with limed twigs or in traps. M. Colombeau assures me, that he found a nest with five eggs in the bleachfield of M. Hery de la Salle.” Cramer tells us, that in the forests skirted by the Danube, thousands of young Siskins are found, which have not dropt their first feathers, and yet it is very rare to meet with a nest. One day when he was botanizing with one of his friends about the 15th of June, they both saw a male and female Siskin often fly towards an alder with food in their bills ; but, though they searched with all possible care, they could neither hear nor see the young ones.

found.—The best way to ascertain the point, would be to observe how they proceed when they breed in a volery; which, though the trial has not hitherto succeeded, is still possible.

But it is more common to cross them with the canaries. There seems to be a great sympathy between the two species; they show a reciprocal fondness at the very first meeting, and intermix indiscriminately*. When a Siskin is paired with a hen canary, he eagerly shares her toils; he is busy in carrying materials for the nest, and arranging them; and regularly disgorges food for the sitting female. But yet most of the eggs are addle: for the union of hearts is not alone sufficient in generation, and the temperament of the Siskin wants much of the warmth of the Canary.—The Hybrids resemble both parents.

In Germany, the Siskins begin to migrate in October, or even earlier; at this time they eat the hop seeds, to the great injury of the proprietors, and the places where they halt are strewn with leaves. They entirely disappear in December, and return in February†. In Burgundy, they arrive at the season of vintage, and repass when the trees are in flower: they

* Father Bougot, from whom I received these remarks, has for five years seen a hen Siskin breed thrice annually with the same cock canary, and the four following years twice annually with another canary, the first having died.

† Frisch.

are particularly fond of the blossoms of the apple-tree.

In Provence, they leave the woods and descend from the mountains about the end of autumn. At that time, they appear in flocks of more than two hundred, and sit all upon the same tree, or at a very little distance from each other. The passage continues fifteen or twenty days, after which scarcely any more are seen *.

The Siskin of Provence is rather larger, and is of a finer yellow than that of Burgundy †.— It is a slight variety of climate.

These birds are not so unfrequent in England as Turner supposed ‡. They are seen as in other places, during their migration, and sometimes they pass in very numerous flocks, and at other times in very small bodies. The immense flights happen only once in the course of three or four years, and some have supposed them to be brought by the wind §.

The song of the Siskin is not disagreeable, though much inferior to that of the goldfinch, which it acquires, it is said, with tolerable facility; it also copies the canary, the linnet,

* Note of the Marquis de Piolenc.

† Note of M. Guys.

‡ I mention this on the authority of Willughby. But the authors of the British Zoology say, that they never saw the bird in the country, and we must conclude that it is at least rare in Britain.

§ Olina. "In Prussia, myriads are caught in the yards."
—KLEIN.

the pettychaps, &c. if it has an opportunity of hearing them when young.

According to Olina, this bird lives ten years*; the female of Father Pougot has reached that age, but we must observe that in birds the females always outlive the males. However, the Siskins are little subject to diseases, except the melting of the fat, when they are fed with hemp-seed.

The male Siskin has the top of the head black, the rest of the upper part of the body olive, and slightly variegated with blackish; the small upper coverts of the tail entirely yellow; the great coverts olive, terminated with cinereous; sometimes the throat is brown, and even black †; the cheeks, the fore-part of the neck, the breast, and the lower coverts of the tail, of a fine lemon-yellow; the belly yellowish-white; the flanks the same, but speckled with black; there are two olive or yellow transverse stripes on the wings, the

* Those which toil at the bucket (*à la galere*) are much shorter lived.

† All the adult males have not a black or brown throat: I have had some in which it was yellow, like the breast, and yet they had all the other characters of the males. I had an opportunity to see this black spot form by degrees on one caught in the net; it was at first about the size of a small pea, and extended insensibly to a length of six lines, and a breadth of four, in the space of eighteen months, and at present (8th April) it appears still to grow. This Siskin seems to be larger than common, and its breast of a finer yellow.

quills of which are blackish, edged exteriorly with an olive-green; the quills of the tail yellow, except the two intermediate ones, which are blackish, edged with olive-green; they have all a black shaft; the bill has a brown point, the rest white, and the legs are grey.

In the female, the upper part of the head is not black, but somewhat variegated with grey; and the throat is neither yellow, brown, nor black, but white.

Total length four inches and three-fourths; the bill five lines; the alar extent seven inches and two thirds; the tail twenty-one lines, somewhat hooked, and projecting seven or eight lines beyond the wings.

VARIETIES of the SPECIES of SISKINS.

I. In the month of September last year, a bird was brought to me that had been caught in a trap, and which must have been bred between the Siskin and canary; for it had the bill of the latter, and nearly the plumage of the former: it had undoubtedly escaped from some volery. I had no opportunity of hearing its song, or of obtaining progeny from it, since it died in March following; but M. Guys informs me, that in general the warble of these hybrids is varied and pleasant. The upper part of the body was mixed with grey, with brown, and with a little olive-yellow; which last was the principal colour behind the neck, and was almost pure on the rump, on the fore-part of the neck, and of the breast as far as the thighs; lastly, it bordered all the quills of the tail and wings, the ground of which was blackish, and almost all the superior coverts of the wings.

Total length four inches and one-fourth; the bill three lines and a half; the alar extent seven inches and a half; the tail twenty-two lines, somewhat forked, and projecting nine lines beyond the wings; the hind-toe was the longest.

The *œsophagus* two inches three lines, dilated in the shape of a small pouch before its insertion into the gizzard, which was muscular, and lined with a loose cartilaginous membrane; the intestinal tube seven inches and one-fourth; small gall-bladder, but no *cæcum*.

II. The NEW-YORK SISKIN*. We need only to compare this with the European Siskin, to perceive that it is a variety resulting from the difference of climate. It is rather larger, and has its bill somewhat shorter than ours; it has a black cap; the yellow of the throat and breast ascends behind the neck, and forms a short collar; the same colour borders most of the feathers on the highest part of the back, and appears again on the lower part of the back and on the rump; the superior coverts of the tail are white; the quills of the tail and of the wings are of a fine black, edged and tipped with white: all the under part of the body is dirty white. As the Siskins are roving birds, and fly

* CHARACTER SPECIFICUS.

FRINGILLA TRISTIS. F. olivaceo-fusca subtus alba, collo pectore uropygioque flavis, remigibus rectricibusque nigris albo marginatis.—*Lath. Ind. Orn.* i. p. 452. No. 64. Var. β .

LE TARIN de la NOUVELLE YORK.—*Buff. par Sonn.* xlviii. p. 208.—*Pl. Enl.* 292. f. 1. 2.—*Lath. Syn.* iii. p. 291.

HABITAT.

in America.

W.

very lofty, they may have migrated into North America, and suffered some changes in their plumage.

III, The OLIVAREZ*. The upper part of the body is olive; the under lemon; the head black; the quills of the tail and wings blackish, edged more or less with light yellow; the wings marked with a yellow stripe. So far it much resembles the European and the New-York Siskin, and its size and shape are the same. It is probably the same bird, which, being lately introduced into these different climates, has not yet undergone all the change.

In the female, the top of the head is of a brown-grey, and the cheeks lemon, as also the throat.

It has a pleasant song, and in that respect excels all the birds of South America. It is found near Buenos Ayres and the Straits of Magellan, in the woods which shelter it from the severity of the cold and the violence of the winds. The one which Commerson saw was caught by the foot between the two valves of a muscle.

The bill and legs were cinereous; the pupil blueish; the mid-toe joined by its phalanx to the outer-toe; the hind-toe the thickest, and its nail the longest of all: it weighed an ounce.

* *Fringilla Spinus*, var. 2.—*Linn.*
Olivarez.—*Lath.*—3. p. 291. C.

Total length four inches and a half; the bill five lines; the alar extent eight inches; the tail twenty-two lines, somewhat forked, composed of twelve quills, and projecting about an inch beyond the wings; the wings consist of only sixteen feathers.

IV. The BLACK SISKIN*. As there are black goldfinches with an orange head, so there are black Siskins with a yellow head. Schwénckfeld saw one of that colour in the volery of a Silesian gentleman; all the plumage was black except the top of the head, which was yellowish.

* *Fringilla Spinus*, var. 2.—*Lin.*.

· *Ligurinus*.—*Bris.*

FOREIGN BIRDS

WHICH ARE RELATED TO THE SISKIN.

I.

THE CATOTOL *.

THIS is the name given in Mexico to a small bird of the size of our Siskin, which has all the upper part variegated with blackish-fulvous, and all the lower part whitish, and the legs cinereous: it resides in plains, lives on the seeds of a tree called by the Mexicans *hoauhtli*, and sings agreeably.

* CHARACTER SPECIFICUS.

FRINGILLA CACATOTOTL. *F. nigricante fulvoque varia, subtus candida.*—*Lath. Ind. Orn.* i. p. 453. No. 67.

FRINGILLA CATOTOL.—*Gmel. Syst.* i. p. 914.

LIGURINUS MEXICANUS NIGER.—*Bris.* iii. p. 71. 6.

CACATOTOTL.—*Raii Syn.* p. 172.

LE CATATOL.—*Buff. par Sonn.* xlviii. p. 453. No. 67.

BLACK MEXICAN SISKIN.—*Lath. Syn.* iii. p. 292. 60.

HABITAT

in Mexico.

W.

II.

THE ACATECHILI*.

THE little which we know of this bird evinces its relation to the Siskin: its size is nearly the same; its song the same; and it feeds on the same substances: its head and all the upper part of the body are greenish-brown; the throat and all the under part white shaded with yellow. The Mexican name *Acatechichictli*, signifies the *bird that rubs itself against the reeds*: may not this allude to some of its habits?

* CHARACTER SPECIFICUS.

FRINGILLA MEXICANA. F. fusco-virescens, subtus albida.

—*Lath. Ind. Orn.* i. p. 453, No. 66.

FRINGILLA MEXICANA.—*Gmel. Syst.* i. p. 914.

LIGURINUS MEXICANUS.—*Bris.* iii. p. 70. 5.

ACATECHICHICTLI.—*Raii Syn.* p. 90. 3.

L'ACATECHILI.—*Buff. par Sonn.* xlviii. p. 213.

MEXICAN SISKIN.—*Lath. Syn.* iii. p. 292. 59.

HABITAT

in Mexico, inter arundines.

W.

THE TANAGRES *

IN the warm parts of America is found a very numerous genus of birds, some of which are called *Tangaras* at Brazil; and nomenclators have adopted this name for all the species included. These birds have been supposed by most travellers to be a kind of sparrows; in fact, they differ from the European sparrows only by their colours, and by a minute character, that the upper mandible is scalloped on both sides near the point. They closely resemble the sparrows in their instinctive habits: they fly low and by jerks; their notes are for the most part harsh; they may be also reckoned granivorous, for they live upon very small fruits; they are social with each other, and, like the Sparrows, are so familiar, as to visit the dwellings: they settle in dry grounds, and never in marshes; they lay two eggs, and sometimes, though rarely, three: the sparrows of Cayenne have seldom more eggs, while those of Europe have five or six;

* TANAGRA.

CHARACTER GENERICUS.

Rostrum conicum, acuminatum, emarginatum, basi sub
trigonum, apice declive.

and this difference is perceived in general between birds of hot and those of temperate climates. The smallness of the hatch is compensated by its frequent repetition, love being cherished and maintained by the continual and uniform warmth.

The whole genus of Tanagres, of which we know more than thirty species, exclusive of varieties, seems confined to the new continent; for all those which we have received were brought from Guiana and other countries of America, and not from Africa or India. This multitude of species is not surprising; for, in general, the number of birds in the torrid zone is perhaps ten times greater than in other regions, because nature is there more prolific, and less disturbed in her operations by the interference of man; because forests are there more frequent, subsistence is more plentiful, and the colds of winter are unknown: and the natives of the tropical countries, rioting in a perpetual abundance, are totally exempted from the risks and dangers of a migration, and seldom are obliged even to shift from one haunt to another.

To avoid confusion, we shall range the thirty species of Tanagres into three divisions, adopting the characters from the most obvious difference, that of size.

THE GRAND TANAGRE*.

. *First Species.*

THIS is represented No. 205, Pl. Enl. by the appellation of the *Tanagre of the Woods of Cayenne*; because I was told that it always came out of the extensive forests: but M. Sonnini of Manoncour has since informed me that it also lodges often in the bushes in open situations. The male and female, which are much

* CHARACTER SPECIFICUS.

TANAGRA MAGNA. T. fusco-olivacea, fronte genisque cœruleis, striga maxillari nigra, gula crissoque rubris, superciliis maculaque gulæ albis.—*Lath. Ind. Orn.* i. p. 422. No. 8.

TANAGRA MAGNA.—*Gmel. Syst.* i. p. 890.

LE GRAND TANGARA.—*Buff. par Sonn.* xlviii. p. 258. pl. 114. f. 1,

LE TANGARA des GRANDS BOIS de CAYENNE.—*Pl. Enl.* 205.

GRAND TANGARA.—*Lath. Syn.* iii. p. 220.

HABITAT

in Cayanæ, Guianæ densis sylvis.

W.

alike, commonly fly together. They live on small fruits, and sometimes eat the insects that prey on plants.

The figure will give a distinct idea of this bird. It is entirely a new species.



THE CRESTED TANAGRE*.

Second Species.

THIS bird is not quite so large as the preceding, and is proportionally thicker. It owes its name to a small crest which it can erect at pleasure, and which distinguishes it from all the other Tanagres.

It is very common in Guiana, where it lives on small fruits. It has a shrill cry, like that of the chaffinch, but has not the song of that bird. It is found only in the cleared spots.

* CHARACTER SPECIFICUS.

TANAGRA CRISTATA. *T. nigricans*, crista aurantia, gula uropygioque fulvis.—*Lath. Ind. Orn.* i. p. 422. No. 9.

TANAGRA CRISTATA.—*Gmel. Syst.* i. p. 898.

TANGARA CAYANENSIS NIGRA CRISTATA.—*Bris. Sup.* p. 65. t. 4. f. 3.

LA HOUPPETTE.—*Buff. Pl. Enl.* 7. f. 2. et 301. f. 2.—*Buff. par Sonn.* xlviii. p. 261.

CRESTED TANAGER.—*Lath. Syn.* iii. p. 221. 8.

HABITAT

in Guiana.—6½ pollices longa.

W.

THE VIOLET TANAGER*.

Third Species.

WE are indebted to the late M. Commerson for our knowledge of this bird: it is well preserved in his collection: he had called it the *Black Bunting* (*Bruant Noir*), which is very improper.—It is of a deep violet on the body, and even on the belly, with some greenish reflections on the wings and tail.

It measures from the end of the bill to that of the tail eight inches; its bill is blackish, and eight or nine lines in length; its tail, which is not taper, is three inches long, and projects eighteen lines beyond the wings; the *tarsus* is

* CHARACTER SPECIFICUS.

TANAGRA BONARIENSIS. T. atro-violacea, alis caudaque viridi-nitentibus.—*Lath. Ind. Orn.* i. p. 430. No. 36.

TANAGRA BONARIENSIS.—*Gmel. Syst.* i. p. 898.

LE TANGAVIO.—*Buff. Pl. Enl.* 710.—*Buff. par Sonn.* xlviii. p. 264.

VIOLET TANAGER.—*Lath. Syn.* iii. p. 222. ♀.

HABITAT

in Bonaria.—8 pollices longa.

W.

about an inch long, and blackish, as well as the toes; the nails are thick and strong.'

In the female the head is of a shining black, like polished steel; all the rest of the plumage is of an uniform blue. On the upper part of the body, however, and on the rump, are some tints of a shining black.

The Violet Tanagre is found at Buenos Ayres, and probably in other parts of Paraguay. We are unacquainted with its mode of life.

THE SCARLET TANAGRE*.

Fourth Species.

THIS bird is the same with the cardinal of Brisson, and with the scarlet sparrow of Edwards. To it we should also refer, first, the two red and black sparrows of Aldrovandus: the only difference being that the one happened to lose its tail, and this defect has been converted by Aldrovandus into a specific character, in which error he has been copied by all the ornithologists †. Secondly, the *Tijepiranga* of

* CHARACTER SPECIFICUS.

TANAGRA RUBRA.—*Lath. Ind. Orn.* i. p. 421. Var. β.

MERULA BRASILICA.—*Raii Syn.* p. 66. 8.—*Will.* p. 142.—*Id. (Angl.)* 195.

LA TANGARA du CANADA.—*Pl. Enl.* 156. 1.

LE SCARLAT.—*Buff.* iv. p. 245.

SCARLET SPARROW.—*Edw.* t. 343.—*Lath. Syn.* iii. p. 217.

HABITAT

in America.

W.

† *Tanagra Brasilia*, var. 2.—*Gmel.*

The Rumpless Blue and Red Indian Sparrow.—*Will.*

Marcgrave*. Thirdly, the *Chiltototl*† of Fernandez. Fourthly, and lastly, the Brazilian Blackbird of Belon, which received that name from those who first imported it into France. Aldrovandus has copied Belon. The descriptions coincide in every respect, except in the songs of these birds; and I observed that those which chanted were larger, had a brighter red tinge on the plumage, and also on the superior coverts of the wings, &c. which makes it very probable that they were the males; indeed, in almost all kinds of birds it is the males that are musical.

It would also appear, that in the male the feathers on the head are longer, and form a sort of crest, as Edwards has figured it. This has led some travellers to say that there are two kinds of cardinals in Mexico; one crested, which sings agreeably, and the other smaller, which sings not at all.

These birds belong to the warm climates of Mexico, Peru, and Brazil; but are rare in Guiana. Belon tells us that in his time the merchants who traded to Brazil drew considerable profit from the importation of them. Probably the feathers were employed to ornament the

* Mr. Latham reckons the *Tijepiranga* to be the female of the Hooded Tanagra (*Tanagra Pileata*).

† This is the *Tanagra Brasilia* of Linnæus, the *Cardinalis* of Brisson, and the *Brasilian Tanager* of Latham. Its specific character:—"It is scarlet; its wings and tail black." It is six inches and one-fourth long.

robes and other dresses then in fashion, and these birds were more numerous than at present.

We may presume that when travellers talk of the warble of the cardinal, they mean the Scarlet Tanagre; for the *Crested Cardinal* is of the genus of the grosbeaks, and consequently a silent bird. With regard to this point, Salerne contradicts himself in the same page. It is universally admitted that this Tanagre has an agreeable warble, and is susceptible even of instruction. Fernandez relates that it is found particularly at Totonocapa in Mexico, and sings delightfully.

We reckon the following varieties of this species:—

First, *The Spotted Cardinal**, mentioned by Brisson, which differs from the Scarlet Tanagre only because some feathers of its back and breast are edged with green, which form spots of the same colour, and of a crescent shape. Aldrovandus calls this the *Short-tailed Black-bird*.

Secondly, *The Collared Cardinal*†, mentioned by Brisson. It has not only the same size and colours as the Scarlet Tanagre, but the small coverts, and the edges of the quills of the wings, are blue, and on each side of the neck are two great spots of the same colour; they are contiguous, and shaped like a crescent. But

* *Cardinalus Nævius*.—*Bris.*

† *Cardinalis Torquatus*.—*Bgls.*

Brisson copies his descriptions of the collared and spotted Cardinal from Aldrovandus, who saw only the figures of these two birds, which renders their very existence doubtful. Indeed, I should not have taken notice of them, did not the nomenclators insert them in their catalogues.

Thirdly, The Mexican bird which Fernandez calls *The Parrot-coloured Mexican Bird*, and which Brisson describes under the name of *Mexican Cardinal*. Hernandez says only, "This bird, from the lower part of the bill (which is somewhat hooked, and entirely cinereous) as far as the tail, including the whole of the belly, is of a minium tinge. The same colour is spread over the rump, and part of the back; but near the wings it receives a greenish tinge that gradually increases from thence to the neck, which is quite green. The head has an amethystine or hyacinthine tinge. The circle which surrounds the pupil is very white, and the orbits of a deep cœrulean. The origin of the wings is yellowish; their quills hyacinthine, and marked with a greenish streak. The tail is entirely amethystine, without any mixture of green, and more dilute near the end. The legs, which have three toes before, and one behind, are of a cinereous-violet."

These birds fly in flocks, and are easily caught with nooses, and other snares. They are readily tamed; are fat, and good to eat.

THE CANADA TANAGRE*.

Fifth Species.

THIS bird differs from the scarlet tanagre by its size and plumage; it is smaller, and of a light flame-colour; its bill is entirely of a lead-colour, and has none of the peculiar characters; while in the scarlet tanagre, the upper part of the bill is of a deep black, and the point of the lower mandible black, the rest of it white, and bellied transversely.

The scarlet tanagre is only found in the warmer parts of South America; as in Mexico, Peru, and Brazil. The Canada Tanagre occurs in many tracts in North America; in the coun-

* CHARACTER SPECIFICUS.

TANAGRA RUBRA. *T. rubra*, alis caudaque nigris, rectricibus apice albis.—*Lath. Ind. Orn.* i. p. 420. No. 3.

TANAGRA RUBRA.—*Gmel. Syst.* i. p. 889.

CARDINALIS CANADENSIS.—*Bris.* iii. p. 48. t. 28. t. 2. f. 5.

LE TANGARA du CANADA.—*Buff. par Sonn.* xlviii. p. 278.

RED TANAGER.—*Arct. Zool.* ii. No. 237.—*Lath. Syn.* iii. p. 217. 3.

HABITAT

in Canadæ sylvis.—6½ pollices longa.

W.

try of the Illinois*, in Louisiana,†, and in Florida‡: so that there is no reason to doubt that these birds are of distinct species.

It is accurately described by Brisson. He has properly observed, that the red colour of its plumage is much lighter than in the scarlet tanagre. The superior coverts of the wings, and the two quills next the body, are black; all the other quills of the wings are brown, and edged interiorly with white to their extremity; the tail consists of twelve black quills, terminated by a small border of light white; the lateral quills are rather longer than those of the middle, which makes the tail somewhat forked.

* “ It is scarcely more than a hundred leagues south of Canada that the cardinals begin to be seen. Their song is sweet, their plumage beautiful, and their head wears a crest.”

—CHARLEVOIX.

† Le Page Dupratz.

‡ “ On Wednesday arrived at the port (of Havannah) a bark from Florida loaded with cardinal-birds’ skins and fruits. . . . The Spaniards bought the cardinal-birds at so high a price as ten dollars a-piece, and, notwithstanding the public distress, spent on them the sum of 18,000 dollars.”—

GEMELLI CARERI.

THE MISSISSIPPI TANAGRE*.

Sixth Species.

THIS is a new species. It resembles much the Canada tanagre, only its wings and tail are not black, but of the same colour with the rest of the body. Its bill is larger and thicker than in any of the tanagres; and also the mandibles are convex and inflated, which is uncommon even in any kind of the birds.—This character is badly expressed in the *Planches Enluminées*.

It is much inferior to the scarlet tanagre in point of song. It whistles so loud, and so shrill, that it would stun one in the house, and is fit only to be heard in the fields, or the woods. "In summer," says Dupratz, "we frequently

* CHARACTER SPECIFICUS.

TANAGRA MISSISSIPPENSIS. T. tota rubra.—*Lath. Ind. Orn.* i. p. 421. No. 5.

TANAGRA MISSISSIPPENSIS.—*Gmel. Syst.* i. p. 389.

LE TANGARA du MISSISSIPPI.—*Buff. par Sonn.* xlviii. p. 281.

MISSISSIPPI TANAGER.—*Lath. Syn.* iii. p. 218. 5-

HABITAT

in America.

W.

hear this cardinal in the forests, and in winter only on the banks of rivers after it has drank: during that season it never quits its lodgment, but guards the provisions which it has stored. Sometimes it collects as much as a Paris bushel of maize, which it covers artfully with leaves, and then with small branches or sticks, and allows only a small opening by which to enter into its magazine."

THE BLACK-FACED TANAGRE*.

Seventh Species.

THIS new species was presented to the king's cabinet by Sonnini de Manoncourt. Its plumage is of an uniform cinereous; somewhat lighter under the belly, except the fore-part and the back of the head, of the throat, and of the top of the breast, which are spread with black. The wings and the tail are also cinereous, but deeper cast than the upper part of the body; the quills of the wings are edged exteriorly with a lighter ash-colour, and those of the tail with a still more dilute shade.

This bird is the seventh of this genus in point of size. Its total length is seven inches;

* CHARACTER SPECIFICUS.

TANAGRA MELANOPIS. T. cinerea, capite antèrius colloque toto inferiore nigris.—*Lath. Ind. Orn.* i. p. 422. No. 10.

TANAGRA ATRA.—*Gmel. Syst.* i. p. 898.

LE CAMAIL ou LA CRAVATTE.—*Buff. Pl. Enl.* 714. f. 2.—*Buff. par Sonn.* xlviii. p. 284. pl. 115. f. 1.

BLACK-FACED TANAGER.—*Lath. Syn.* iii. p. 222. 10.

HABITAT

in Guiana.—7 pollices longa.

W.

the bill nine lines ; the upper mandible white at the base and black at the tip, the lower is entirely black ; the tail is somewhat tapered, three inches and one-fourth long, and, projects two inches beyond the closed wings.

It is found in Guiana in the cleared spots, but is very rare, and has been noticed by no author.

THE BLACK-HEADED TANAGRE*.

Eighth Species.

THIS is also a new species, and presented by Sonnini. It is of the same size with the preceding; its length seven inches; its head, wings, and tail, of a fine glossy black; the rest of the body gilded dark brown, deeper on the fore-part of the neck and on the breast; its legs are brown; its tail, though tapered, is three

* CHARACTER SPECIFICUS.

TANAGRA ATRICAPILLA. T. rufo-rubra, capite alis caudaque nigris, striga alarum alba.—*Lath. Ind. Orn.* i. p. 423. No. 13.

TANAGRA ATRICAPILLA.—*Gmel. Syst.* i. p. 899.

LE MORDORE'.—*Buff. par Sonn.* xlviii. p. 286.

LE TANGARA JAUNE à TÊTE NOIRE de CAYENNE.—*Pl. Enl.* 809. f. 2.

BLACK-HEADED TANAGER.—*Lath. Syn.* iii. p. 224. 13.

HABITAT

in Guiana, rara.—7 pollices longa.

W.

inches long, and projects fifteen lines beyond the wings; the bill is black, and nine lines long.

We are totally unacquainted with its habits. It is found in Guiana, and is still more rare than the preceding.

THE FURROW-CLAWED TANAGRE *.

Ninth Species.

THE nails have on each side a small furrow, running parallel to the edges. It was brought by Commerson, and as it resembles the tanagres in every other respect, it is more than probable that it came from South America.

The head of this bird is striped with black and blue; the anterior part of the back is blackish, and the posterior bright orange; the upper coverts of the tail olive-brown; the upper coverts of the wings, their quills, and those of the tail, are black, edged exteriorly with blue; all the under part of the body is yellow.

* CHARACTER SPECIFICUS.

TANAGRA STRIATA. *T. nigra, subtus flava, capite cœruleo nigroque striato, dorso infimo aurantio.*—*Lath. Ind. Orn.* i. p. 423. No. 14.

TANAGRA STRIATA.—*Gmel. Syst.* i. p. 899.

L'ONGLET.—*Buff. par Sonn.* xlviii. p. 288.

FURROW-CLAWED TANAGER.—*Lath. Syn.* iii. p. 224. 14.

HABITAT

in America australi.—7 pollices longa.

W.

Total length near seven inches; the bill eight lines, and furrowed near the point, as in the tanagres; the tarsus nine lines, and the mid-toe the same.

Commerson has left no particulars with regard to its habits.

THE BLACK TANAGRE and the RUFIOUS TANAGRE*.

Tenth Species.

SONNINI informs us, that these constitute only one species, and that the one represented *Pl. Enl.* No. 179, fig. 2, is the male, and that of No. 711 the female. The female is entirely rufous, and the male entirely black, except a white spot on the top of each wing.—They are common in the cleared parts of Guiana; and, like the others, eat small fruits, and sometimes insects. Their cry is shrill, and they have no song. They appear in pairs, and never in flocks.

CHARACTER SPECIFICUS.

ORIOLOUS LEUCOPTERUS. *O. niger*, macula alarum alba.
—*Lath. Ind. Orn.* i. p. 183. No. 31. (*mas.*)

ORIOLOUS LEUCOPTERUS.—*Gmel. Syst.* i. p. 392.

LE TANGARA NOIR.—*Buff. Pl. Enl.* 179. f. 2.—*Buff. par Sonn.* xlviii. p. 290.

GUIANA TANAGER.—*Lath. Syn.* iii. p. 225. (*mas.*)

WHITE-BACKED MAIZE THIEF.—*Arct. Zool.* ii. No. 141.
Kalm. It.

* WHITE-WINGED ORIOLE.—*Lath. Syn.* ii. p. 440. t. in tit.

O. fusco-cinnamomeus, subtus cinerascens.—(*Femina.*)

LE TANGARA ROUX.—*Buff.* iv. p. 257.—*Pl. Enl.* 711.

GUIANA TANAGER.—*Lath. Syn.* iii. p. 225. (*femina.*)

HABITAT

in Guiana Cayana. Surinamo.—8 pollices longus. W.

THE TURQUOISE TANAGRE*.

Eleventh Species.

ALL the lower parts of the body, the upper part of the head, and the sides of the neck, are deep or turquoise-blue; the forehead, the wings, and the tail, are black; there are also some spots of black, near the legs, and a broad bar of the same below the breast.—This bird is found in Guiana, but is not frequent.

* CHARACTER SPECIFICUS.

TANAGRA BRASILIENSIS. T. nigra, subtus alba, jugulo uropygioque cœrulescentibus, facie pectoraque nigris.—*Lath. Ind. Orn.* i. p. 424. No. 15.

TANAGRA BRASILIENSIS.—*Gmel. Syst.* i. p. 895.

————— CÆRULEA.—*Bris.* iii. p. 9. 4.
t. 1. f. 4.

LE TANGARA BLEU du BRÉSIL.—*Pl. Enl.* 179. f. 1.

LE TURQUIN.—*Buff. par Sonn.* xlviii. p. 293.

ELÓTOTÓTL, seu AVIS SPICÆ MAYZII.—*Raii Syn.* p. 170.

GUIRAJENOIA.—*Will.* p. 174.—*Id. (Angl.)* p. 241.

TURQUOISE TANAGER.—*Lath. Syn.* iii. 225. 16.

HABITAT

in Brasilia.—6 pollices longa.

W.

THE RED-BREASTED TANAGRE*.

Twelfth Species.

THE French settlers in Cayenne have given this bird the name of *Silver-bill* (*Bec-d'argent*), which expresses a remarkable specific character; viz. that the base of the lower mandible extends under the eyes, and forms on each side a thick plate, which, when the bird is alive, looks like the brightest silver; but this lustre tarnishes after death. It is imperfectly represented in the *Planches Enluminées*. Edwards has given an excellent figure of this bird under the name of *Red-breasted Blackbird*; he is deceived indeed in regard to the genus, but he has hit the discriminating features.

CHARACTER SPECIFICUS.

TANAGRA JACAPA. T. atra, fronte jugulo pectoreque coccineis.—*Lath. Ind. Orn.* i. p. 419. No. 1.

TANAGRA JACAPA.—*Gmel. Syst.* i. p. 888.

CARDINALIS PURPUREA.—*Bris.* iii. p. 49. 29. 1. 3. f. 2. 3. 1.

LE CARDINAL POURPRE'.—*Pl. Enl.* 128. f. 1. 2.

LE BEC D'ARGENT.—*Buff. par Sonn.* xlviii. p. 205.

RED-BREASTED TANAGRE.—*Lath. Syn.* iii. p. 214. 1.—
Edw. t. 267.

HABITAT

in Cayana, Guiana, Mexico.—6½ pollices longa.

W.

The total length is six inches and a half, and that of the bill nine lines, which is black on the upper part; the head, throat, and breast, are purple, and the rest of the body black, with some purple tints. The iris is brown. The female differs from the male, not only in the colour of its bill, but in those of its plumage; the upper part of the body is brown, with some shades of obscure purple, and the under part reddish; the tail and wings are brown.

Another discriminating character of the male, is a sort of half-collar round the occiput, formed by long purple bristles, which project near three lines beyond the feathers. We are indebted to Sonnini for this remark; and also for our acquaintance with this and all the other tanagres of Guiana.

This bird is more numerous than any of the tanagres in the island of Cayenne and in Guiana; and it probably occurs in many other warm countries of America, for Fernandez gives the same account of a Mexican bird that frequents the vicinity of the mountains of Tepuzcullula. It feeds upon small fruits, and also upon the large pulpy produce of the bananas, &c. when they are ripe; but eats no insects. It haunts the clearest spots, and does not shun the neighbourhood of dwellings, and even visits the gardens. However, the Red-breasted Tanagres are also very common in desert tracts, and even in the glades of the forests: for in spots where the trees are levelled by the hurricanes,

and where the sun darts his burning rays, there are generally some of these birds, though always in pairs, and never in flocks.

Their nest is cylindrical, and somewhat curved, which they fasten horizontally between the branches, the entrance being below ; so that the rain, from whatever direction it beats, cannot penetrate. It is six inches long, and four inches and a half in diameter ; it is constructed with straws and the dry leaves of the Indian flowering reed*, and the bottom is well lined with broader portions of the same leaves :—it is generally fixed in the loftiest trees. The female lays two elliptical eggs, which are white, and covered at the thick end with small spots of light red, which melts away as it approaches the other end.

Some nomenclators have given this bird the name of Cardinal, but improperly : others have supposed that there is an obvious variety in this species. In Mauduit's cabinet we saw a bird whose plumage is pale rose-colour, variegated with grey ; I am rather inclined to think, that this difference is occasioned by moulting.

* *Canna Indica*.—*Linn.*

THE SAINT DOMINGO TANAGRE*,

Thirteenth Species.

THIS tanagre is called the *Slave* in Saint Domingo; and yet we are not told whether it can be bred in a cage, or is gentle and familiar as the name seems to import. Perhaps it owes the appellation to this circumstance:—the crested fly-catcher in Saint Domingo, and the forked-tail fly-catcher of Canada, are termed *Tyrants*, and are much larger and stronger than this bird, which also feeds on insects.

The Saint Domingo Tanagre bears some resemblance to the thrushes; the colours, and particularly the speckles on the breast, are si-

* CHARACTER SPECIFICUS.

TANAGRA DOMINICA. T. nigro-maculata, supra olivaceofusca, subtus albida.—*Lath. Ind. Orn.* i. p. 424. No. 16.

TANAGRA DOMINICA.—*Gmel. Syst.* i. p. 895.—*Bris.* iii. p. 37. 21. t. 2. f. 4.

L'ESCLAVE.—*Buff. par Sonn.* xlviii. p. 301. pl. 115. fig. 2.

LE TANGARA de SAINT DOMINGUE.—*Pl. Enl.* 156. f. 2.

ST. DOMINGO TANAGER.—*Lath. Syn.* iii. p. 226. 17.

HABITAT

in insula Dominicensi.

W.

milar in both, and, like the rest of its genus, it has the upper mandible scalloped.

The head, the upper part of the neck, the back, the rump, the scapular feathers, and the superior coverts of the wings, are of an uniform colour; all the under part of the body is of a dirty white, varied with brown spots, that occupy the middle of each feather; the wing-quills are brown, edged exteriorily with olive, and interiorily with dirty white; the two middle quills of the tail are brown, the rest of the same colour, with an olive border on their inner side; the tail is somewhat forked; the legs are brown*.

* These birds are found, together with the little Cayenne yellow-neck, among the palm-trees of St. Domingo. They suffer no other bird except the one just mentioned to come near, but drive them all away from these trees. They fight when in season; at other times their habits are sociable. Several build their nests on the same tree, and rest them against each other, in such a manner that they form a compact circle round the tree, which a bullet can hardly pierce. The female alone constructs the nest, the male at the same time assisting to procure materials. W.



THE BISHOP TANAGRA.

THE BISHOP TANAGRE*.

Fourteenth Species.

It is larger than those which form the second division of Tanagres †. In the male, all the upper part of the body is blueish-grey; and in the female, all the upper part of the head is of a yellowish-green, and all the upper part of the body, the back, the upper surface of the quills, the wings, and of the tail, olive-brown,

* CHARACTER SPECIFICUS.

TANAGRA EPISCOPUS. *T. cinerea*, *his caudae extus caeruleis*.—*Lath. Ind. Orn.* i. p. 424. No. 17.

TANAGRA EPISCOPUS.—*Gmel. Syst.* i. p. 896.—*Bris.* iii. p. 40. t. 1. f. 2.

LE BLUIT.—*Buff. par Sonn.* xlviii. p. 305. pl. 114. f. 2.

L'EVEQUE.—*Pl. Enl.* 178. f. 1. 2.

SAYAQU.—*Edw.* t. 351. f. 1.

BISHOP TANAGER.—*Arch. Zool.* ii. No. 240.—*Lath. Syn.* iii. p. 220. 18.

HABITAT

in Cayana. *91 pollices longa.*

W.

† Some sentences are omitted here containing the author's reasons for rejecting the appellation given this bird of *Cayenne Bishop*, and for adopting that of *Bluit*.

glossed with violet; the broad bar on the wings, which is light-olive, is distinguished from the brown on the back.

These birds are very common in Cayenne; they haunt the skirts of the forests, plantations, and places that have been long cleared, where they feed upon small fruits. They are never seen in large bodies, but always in pairs. They lodge at night among the leaves of the palm-trees, at their junction, near the stem, and make nearly the same noise that our sparrows do among the willows; for they have no song, and their cry is sharp and unpleasant.

THE RED-HEADED TANAGRE*.

Fifteenth Species.

THE head is tinged with a beautiful red ; all the upper part of the body is of a fine black ; it has a narrow long spot of black on the breast, with purple speckles ; the legs and the upper mandible black ; the lower mandible, yellow at the base and black at the tip.—The species is not very common in Guiana ;* nor are we certain whether it is found any where else.

* CHARACTER SPECIFICUS.

TANAGRA GULARIS. T. nigra, subtus alba, capite rubro, jugulo purpureo.—*Lath. Ind. Orn.* i. p. 425. No. 20.

TANAGRA GULARIS.—*Gmel. Syst.* i. p. 894.

CARDINALIS AMERICANUS.—*Bris. App.* p. 67. t. 4. f. 4.

LE ROUGE-CAP.—*Buff. par Sonn.* xlviii. p. 398.

TANGARA BRUN d'AMERIQUE.—*Pl. Enl.* 155. f. 2.

RED-HEADED TANAGER.—*Lath. Syn.* iii. p. 228. 21.

HABITAT

in Guiana, Cayana rarer.—7 pollices longa.

W.

THE GREEN TANAGRE*.

Sixteenth Species.

THIS bird, which we know only from Brisson's description, is larger than the house-sparrow : all the upper part of the body green ; on each side of the head is perceived a black spot between the bill and the eye, under which is a bar of very brilliant beryl, that extends quite along the lower mandible ; the smallest superior coverts are of a very brilliant sea-green, the others green.

The throat is of a fine black ; the lower part

* CHARACTER SPECIFICUS.

TANAGRA VIRENS. T. viridis subtus flavescens, loris gulaque nigris, fascia maxillari cœrulea.—*Lath. Ind. Orn.* i. p. 426. No. 21.

TANAGRA VIRENS.—*Cmcl. Syst.* i. p. 897.

TANGARA BRASILIENSIS VIRIDIS.—*Bris.* iii. p. 25. 14.—*Id.* 8vo. i. p. 510.

LE TANGARA VERD du BRÉSIL.—*Buff. par Sonn.* xlviii. p. 310.

GREEN TANAGER.—*Lath. Syn.* iii. p. 229. 22.

HABITAT

in Brasilia. Peru. Mexico.—Gl̄ pollices longa.

W.

of the neck yellow, and all the rest of the under part of the body yellowish-green; the wings, when closed, appear of a green running into blue; the quills of the tail of the same colour, except the two intermediate ones, which are green.

Brisson, to whom we are indebted for what we know of this bird, tells us, that it is found in Mexico, Peru, and Brazil.

THE OLIVE TANAGRE.

Seventeenth Species.

WE have given this name, because the plumage is of an olive-green, deeper on the upper-part of the body, and lighter on the under; the great quills of the wings have a still darker shade, for they are almost brown, and show only greenish reflections.

Its length is almost six inches, and its wings reach to the middle of the tail.—It was brought from Cayenne by Sonnini de Manoncour.

* CHARACTER SPECIFICUS.

TANAGRE OLIVACEA. *T. viridi-olivacea subtus alba, gula pectoreque luteis, remigibus rectricibusque fuscis.*—*Lath. Ind. Orn.* i. p. 421. No. 4.

TANAGRA OLIVACEA.—*Gmel. Syst.* i. p. 889.

L'OLIVET.—*Buff. par Sonn.* xlviii. p. 312.

OLIVE TANAGER.—*Arct. Zool.* ii. No. 238.—*Lath. Syn.* iii. p. 218. 4.

HABITAT

in Cayana.

W.

The seventeen preceding species form what we call *the Great Tanagres*:—we shall now describe those which are of the medium size, and which are not so numerous.

THE BLACK AND BLUE 'TANAGRE*.

**First Middle Species.*

THE Creoles of Cayenne call this *The Rheum-Devil*: its plumage is mixed with blue, yellow, and black; the upper part and sides of the head, the throat, the neck, and the rump, and the anterior part of the back, are black, without any tinge of blue; the small coverts of the wings are of a fine sea-green, and at the top of the wing take a violet-cast; the last of these

* CHARACTER SPECIFICUS:

TANAGRA MEXICANA. T. nigra, subtus flavicans, pectore uropygioque cœruleis.—*Lath. Ind. Orn.* i. p. 426. No. 23.

TANAGRA MEXICANA.—*Gmel. Syst.* i. p. 893.

TANAGRA CAYANENSIS CÆRULEA.—*Bris.* iii. p. 6. 2. t. 1. f. 2.

—— DIABLE ENRHEUME.—*Buff. par Sonn.* xlviii. p. 312.

TACHETE de CAYENNE.—*Pl. Enl.* 290. 2.

TIOAUETOTO.—*Roi. Syn.* p. 170.

BLACK AND BLUE TANAGER.—*Lath. Syn.* iii. p. 230. 24.
—*Edw.* t. 350.

HABITAT

in Cayana, Guiana, Mexico.—5 pollices longa.

small coverts is black, terminated with violet-blue; the quills of the wings black; the large ones (the first excepted) are edged exteriorly with green as far as the middle; the great coverts are black, edged exteriorly with violet-blue; the quills of the tail are black, slightly edged on the outside with blue-violet, as far as their ends; the first quill on each side has not this border, they are all grey below; a light yellow copper colour is spread on the breast and belly, the sides of which and the coverts of the thighs are interspersed with black feathers tipped with violet-blue, and also with some yellow feathers spotted with black.

Total length five inches and a half; the bill six lines; the tail an inch and ten lines, and stretches an inch beyond the wings.—It is found in Guiana, but is not frequent:—we are unacquainted with its history.

Brisson thinks that this bird is the *Teoauh-tototl* of Fernandez; but this naturalist only says, that it is about the size of a sparrow, its bill short, the upper part of the body blue, and the under yellowish-white, with black wings: from a description so incomplete, it is impossible to decide the identity. Fernandez adds, that the *Teoauhtototl* frequents the valleys and hills of *Tetzocan* in Mexico; that it is good eating; that its song is unpleasant; and that it is not bred in houses.

THE GREY-HEADED TANAGRE*.

Second Middle Species.

THE whole plumage of this bird is greenish, except the front, which is rufous from both sides, on which two bars of the same colour extend from the front to the rise of the red; the rest of the head is ash-grey.

Total length five inches and four lines; that of the bill, seven lines, and that of the legs eight lines: the tail is not tapered, and the wings, when closed, do not quite reach the middle.

We are indebted to Sonnini de Manoncour for this species, which is new. It is found in the extensive forests of Guiana;—but we are unacquainted with its history.

* CHARACTER SPECIFICUS.

TANAGRE GUIANENSIS. T. viridis, capite cinereo-cano, fronte fasciæque verticis duplici rufis.—*Lath. Ind. Orn. i. p. 427. No. 24.*

TANAGRA GUIANENSIS.—*Gmel. Syst. i. p. 893.*

LE VERDEROU.—*Buff. par Sonn. xlviii. p. 317.*

GREY-HEADED TANAGRE.—*Lath. Syn. iii. p. 231. 25.*

HABITAT

in Guianæ sylvis; rara.—5½ pollices longa.

THE RUFOUS - HEADED TANAGRE*.

THE upper part of the head is rufous; the upper part of the neck, the lower part of the back and the rump are of a pale-gold yellow, shining like raw silk, and in certain positions there appears a delicate tint of green; the sides of the head are black; the higher part of the back, the scapular feathers, the small superior coverts of the wings and those of the tail, are green.

The throat is blue-grey; the rest of the under part of the body shines with a confused mixture of pale-gold yellow, rufous, and blue-grey, and each of these predominates according to the light in which the bird is viewed; the quills of the wings and of the tail are brown, with a border of gold-green.

In the female, the upper part of the body is green, and the under of a dull yellow, with some greenish reflexions.

* N. B. This is the T. Cayana, not the variety, which is properly placed over leaf.

† This bird was by mistake ranked among the sparrows; it is now restored to its proper place.

These birds are very common in Cayenne, where the Creoles call them *Dauphinois*; they inhabit only the cleared tracts, and even come near the plantations; they feed on fruits, and destroy vast quantities of bananas and Indian pears; they consume also the crops of rice when in maturity; the male and female commonly follow each other, but they do not fly in flocks, only a number of them is sometimes seen together among fields of rice.—They have no song or warble, and only a short shrill cry.

* In some individuals, the rufous at the top of the head descends much lower on the neck; in others, this colour extends on the one hand upon the breast and the belly, and on the other upon the neck and all the upper side of the body, and the green of the wing-feathers has a changing blue cast.

VARIETY*.

LINNÆUS describes a bird resembling much the preceding. The fore part of the neck, the breast, and the belly, are golden-yellow; the back greenish-yellow; the wings and the tail green, without any mixture of yellow. It differs however in having its head of a bright blue.

* CHARACTER SPECIFICUS.

TANAGRA CANANA. T. flava, dorso flavescente-viridi, capite cœruleo, alis caudaque viridibus.—*Lath. Ind. Orn.* i. p. 427. No. 25. Var. β.

LE PASSE VERD à TÊTE BLEUE.—*Buff. par Sonn.* xlviii. p. 323. (*variété.*)—*Lath. Syn.* iii. p. 232. W.

THE GREEN-HEADED TANAGRE*.

Fourth Middle Species.

Brought from Cayenne by Sonnini. The plumage consists of three colours ; red, green, and blue, which are all very bright. The two

* CHARACTER SPECIFICUS.

TANAGRE TRICOLOR. *T. viridis splendens, subtus viridi-flavescens, tectricibus alarum violaceis, Capistro dorsoque superiore nigris, uropygio fulvo.*—*Lath. Ind. Orn. i. p. 428. No. 29.*

TANAGRA TRICOLOR.—*Gmel. Syst. i. p. 891.*

TANGARA CAYANENSIS varia CHLOROCEPHALOS.—*Bris. Sup. p. 59. t. 4. f. 1.*

LE TRICOLOR.—*Buff. par Sonn. xlviii. p. 324.*

TANGARA VARIE' à TÊTE VERTE de CAYENNE.—*Pl. Enl. 33. 1.*

GREEN-HEADED TANAGER.—*Lath. Syn. iii. p. 234. 30.*

HABITAT

in Cayana.— $6\frac{1}{2}$ pollices longa.

β. TANGARA CAYANENSIS varia CYANOCEPHALOS.—*Bris. Sup. p. 62. t. 4. f. 2.—Id. 8vo. i. p. 319. 32.—Pl. Enl. 33. f. 2.*

LE TRICOLOR.—*Buff. iv. p. 276.—Lath. Syn. iii. p. 235. 30. var. A.* W.

birds represented in No. 33 of the *Planches Enluminées*, seem to belong to the same species, and perhaps differ only in sex; for in the one the head is green, and in the other blue; in the former, the upper part of the neck is red, and in the latter green:—and these are almost the sole differences.

We have seen in the cabinet of M. Aubri, Rector of St. Louis, one of these in high preservation, and said to have come from the Straits of Magellan; but it is not very probable that the same bird should inhabit the torrid climate of Cayenne, and the dreary frozen tracts of Patagonia.

THE GREY TANAGRE*.

Fifth Middle Species.

The under part of the body is grey, the upper olive. It occurs both in Guiana and Louisiana.

• CHARACTER SPECIFICUS.

TANAGRA GRISEA. T. olivaceo-grisea, subtus grisea, alis quaque nigricantibus griseo marginatis.—*Lath, Ind. Orn.* i. p. 428. No. 30.

TANAGRA GRISEA.—*Gmel. Syst.* i. p. 892.

LE GRIS-OLIVE.—*Buff. Pl. Enl.* 714. f. 1.—*Buff. par Sonn.* xviii. p. 327.

GREY TANAGER.—*Arct. Zool.* ii. No. 239.—*Lath. Syn.* iii. p. 230. 31.

HABITAT

in Guiana, Louisiana.—5 pollices longa.

W.

THE PARADISE TANAGRE*.

Sixth Middle Species.

THE plumage is variegated with seven colours: fine green on the head, and the small superior coverts of the wings; glossy black on the upper parts of the neck and back, on the middle quills of the wings, and on the upper surface of the quills of the tail; brilliant fire-colour on the back; orange-yellow on the rump; violet-blue on the throat, the lower part of the neck, and the great superior coverts of the wings; deep grey on the under surface of the

* CHARACTER SPECIFICUS.

TANAGRA TATAO. T. violacea, dorso nigro, uropygio fulvo, capite viridi, pectore alisque violaceis.—*Lath. Ind. Orn.* i. p. 428. No. 31.

TANAGRA TATAO.—*Gmel. Syst.* i. p. 893.

TANGARA.—*Raii Syn.* p. 84. 13.—*Will.* p. 197.—*Id. (Angl.)* p. 243.—*Bris.* iii. p. 3. 1. t. 1. f. 1.—*Pl. Enl.* 7. f. 1.—*Id.* 127. f. 2.

LE SEPTICOLOR.—*Buff. par Sonn.* xlviii. p. 320.

TITMOUSE OF PARADISE.—*Edw.* t. 340.

PARADISE TANAGER.—*Lath. Syn.* iii. p. 236. 31

HABITAT

in *Brasilia, Cayana.*

tail; and, lastly, fine sea-green on all the under part of the body from the breast. These colours are all exceedingly bright, and well defined.

It does not assume the vivid red on the back till grown up, and the female never has that colour; the lower part of her back too is orange like the rump, and in general her tints are more dilute, and not so distinctly defined as those of the male.—But there is still some diversity in the disposition of the colours; some males have the bright red on the rump as well as on the back; and in many others both the back and rump are entirely of a gold colour.

The male and female are nearly of the same size, being five inches long; the bill only six lines, and the legs eight lines; the tail is somewhat forked, and the wings reach to the middle of it.

These birds appear in numerous flocks. They feed upon the tender half-formed fruits which grow on a certain large tree in Guiana. They arrive in the island of Cayenne when this tree is in blossom, and depart soon afterwards, penetrating probably into the interior parts of the country when the same fruits are later in coming to maturity. They make their appearance in the inhabited parts of Guiana commonly about the middle of September, and stay about six weeks; they return again in April or May. Indeed they seem to seek always the same food; and when any of those trees are in

bloom, we may certainly expect to find a number of these birds.

They breed not during their residence in Guiana. Marcgrave tells us that in Brazil they are kept in the cage, and fed on meal and bread. They have no warble, and their cry is short and sharp.

We must not, with Brisson, range the *Talao* with this species; for the description given by Seba is not at all applicable to it: "The *Talao*," says Seba, "has its plumage beautifully variegated with pale green, with black, with yellow, and with white; the feathers of the head and breast are finely shaded with pale green, and with black; and the bill, the legs, and the toes, are deep black." Besides, what demonstratively proves it to be not the same bird, the author adds, that it is very rare in Mexico; whereas the *Paradise Tanagres* we have seen arrive there in very great numbers.



THE SMALL TANAGRE.

THE BLUE TANAGRE

Seventh Middle Species.

Its head, throat, and the under part of the
 of a fine blue; the back of the head,
 art of the neck, the back, the wings,
 , black; the superior coverts of the
 igs. black, and edged with blue; the breast,
 and the rest of the under part of the body, fine
 white.

On comparing this with what Seba calls the
American Sparrow, they appear to be the same
 differing only perhaps in age and sex. Brisson
 seems to have amplified the imperfect account
 of Seba; but as he does not produce his autho-
 rities, we cannot lay any weight on his de-
 scription.

Seba's bird came from Barbadoes; ours from
 Cayenne.

* CHARACTER SPECIFICUS.

TANAGRA MEXICANA. T. nigra, subtus alba, capiti
 collo inferiore pectoreque cœruleis, tectricibus caudæ
 viridibus.—*Lath. Ind. Orn.* 1. p. 426. Var. A.

TANAGRA BARBADENSIS CÆRULEA.—*Bonn.* iii. p. B. 5.

TANAGRA BLEU.—*Buff. Pl. Enl.* 165. f. 1.—*Buff. p.*
Pl. Enl. p. 334.

PASSEY AMERICANUS.—*Seba*, 1. p. 104. t. 67. 3.—*Lath.*
Syn. iii. p. 231. A.

THE BLACK - THROATED TANAGRE *.

Eighth Middle Species.

THIS species is new. It was found in Guiana and brought home by Sonnini de Manoncourt.

The head, and all the upper part of the body, olive-green; the throat black; the breast orange; the sides of the neck, and all the under part of the body, fine yellow; the superior coverts of the wings, the quills of the wings, and of the tail, brown, and edged with olive; the upper mandible black, the lower grey; and the legs blackish.

* CHARACTER SPECIFICUS.

TANAGER NIGROCOLLIS. *T. olivacea subtus flava, gula nigra, pectore auranteo, tectricibus alarum, remigibus rectricibusque fuscis, margine olivaceis.*—*Linn. Syst. Nat. Gmel. i. p. 894.*

TANGARA OLIVE à GORGE NOIRE de CAYENNE.—*Buff. Pl. Enl. 720. No. 1.*

TANGARA à GORGE NOIRE.—*Buff. par Sonn. xlviii. p. 336.*

BLACK-THROATED TANAGER.—*Lath. Syn. ij. p. 287, No. 33.*

HABITAT

in Guiana.—5 pollices longa.

THE HOODED TANAGRE*.

Ninth Middle Species.

THE total length of this bird is four inches and ten lines: its bill is black, and nine lines long; all the under part of the body is white, slightly varied with cinereous; the upper part of the head is glossy black, which extends on each side of the neck in a black bar, distinctly marked on the white ground of the throat,

* CHARACTER SPECIFICUS.

TANAGRA PILEATA. T. cœrulescente-cinerea; subtus alba, vertice strigaeque lateribus colli nigris, inter rostrum et oculos macula alba. (Mas.)—*Lath. Ind. Orn.* i. p. 423. No. 11.

TANAGRA PILEATA.—*Gmel. Syst.* i. p. 898.

LA COIFFE NOIRE.—*Buff. Pl. Enl.* 720. f. 2.—*Buff. par Sonn.* xlviii. p. 337.

HOODED TANAGER.—*Lath. Syn.* iii. p. 223. 11.

T. cœrulescente-cinerea, subtus alba. (Femina.)

TANAGRA BRASILIENSIS CINEREA.—*Bris.* iii. p. 17. 9.

TUPPIRANGA, secundus species.—*Raii Syn.* p. 89. 1.—*Will.* p. 184.—*Id. (Angl.)* p. 251. 9.

HABITAT

in Guiana, Brasilia,

W.

which makes the bird look as if it were hooded with black. The quills of the tail are not tapered, and are all twenty-one lines long, and extend an inch beyond the wings; the legs are nine lines long.

The *Tiyepiranga* of Marcgrave, which Brisson terms the *Cinereous Tanagre of Brazil*, would resemble this bird exactly, if Marcgrave had mentioned the black hood: and this renders it probable that the one which we have described is the male, and that of Marcgrave the female of the same species.

They are found in Brasil and Guiana; but we are not acquainted with their history.

SMALL TANAGRES.

THE middle-sized Tanagres which have been above enumerated, are in general not larger than a linnet.—Those which we are going to describe are sensibly smaller, and exceed not the size of a wren.

THE RED-HEADED TANAGRE*.

First Small Species.

Its head is green; its body entirely rufous, except a light blue spot on the breast, and a yellow spot on the top of the wing.

This species appears in many parts of South America; in Peru †, Surinam, and Cayenne ‡. It would seem that it migrates, for it is not found in the same place the whole year. It arrives in Guiana twice or thrice annually, to

* CHARACTER SPECIFICUS.

TANAGRA GYROLA. *T. viridis*, capite rubro, collari flavo, pectore cœruleo.—*Lath. Ind. Orn.* i. p. 427. No. 26.

TANAGRA GYROLA.—*Gmel. Syst.* i. p. 891.

TANAGRA PERUVIANA VIRIDIS.—*Bris.* iii. p. 23. 13. t.

4. f. 1.

LE ROUVERDIN.—*Buff. par Sonn.* xlviii. p. 341.

LE TANGARA de PEROU.—*Pl. Enl.* 133. 2.

RED-HEADED GREENFINCH.—*Edw.* t. 23.

RED-HEADED TANAGER.—*Lath. Syn.* iii. p. 233. 27.

HABITAT

in Peru, Surinamo, Cayana; gregaria.—4½ pollices longa. W.

† Edwards.

‡ Brisson.

feed upon small fruit that grows on a large tree, on which it perches in flocks; and again departs, probably after the provisions are consumed. As these birds are not frequent, and always avoid the cleared and inhabited spots, their habits have not been observed.

THE SYACU TANAGRE*.

Second Small Species.

THE two birds represented in the *Planches Enluminees*, No. 133, fig. 1, No. 301, fig. 1, seem to belong to the same species, and differ perhaps only in the sex. It is likely that the white-bellied one is the female, and the green-bellied one the male.

We give them the name of *Syacou*, contracted from the Brazilian appellation *Sayacou*; for we have no doubt that what Brisson terms the *Variegated Tanagre of Brazil* is the same kind.

These two birds were brought from Cayenne, where they are rare,

* CHARACTER SPECIFICUS.

TANAGRA SAYACA. T. cana, alis subcœruleis.—*Lath. Ind.*

Orn. i. p. 425. No. 18.

TANAGRA SAYACA.—*Gmel. Syst.* i. p. 897.

TANGARA BRASILIENSIS VARIA.—*Bris.* iii. p. 18. 19.

———— TACHETE' de CAYENNE.—*Pl. Enl.* 301. f. 1.

SYACU.—*Raii Syn.* p. 89. 3.—*Will.* p. 188.—*Id. (Angl.)* p. 256.

LE SYACOU.—*Buff. par Sonn.* xlviii. p. 343.

SYACU TANAGER.—*Lath. Syn.* iii. p. 227. 19.

HABITAT

in Cayana; magnitudine Fringillæ.

W.

THE ORGANIST*.

Third Small Species.

SUCH is the name this little bird receives at St. Domingo; because it sounds all the notes of the octave, rising from the base to the treble. This sort of song, which implies that the ear of this bird is organised similarly to the human ear, is not only singular, but very pleasant. The Chevalier Fabre Deshayes has informed me in a letter, that in the south of St. Domingo, on the high mountains, there is a small bird very rare and famous, called the *Musician*, whose song can be written. We presume that this is

* CHARACTER SPECIFICUS.

PARUS MUSICA. P. nigricans, corpore subtus uropygioque fulvis, gutture genisque nigris, vertice nuchaque coeruleis, fronte flava.—*Lath. Ind. Orn.* ii. p. 562. No. 28.

PIPERA MUSICA.—*Gmel. Syst.* i. p. 1004.

L'ORGANISTE.—*Buff. Pl. Enl.* 309. f. 1. —*Buff. par Sonn.* xlviii. p. 346. pl. 116. f. 2.

L'EVEQUE.—*Hist. de la Louisiane*, ii. p. 140.

TUNEFUL MANAKIN.—*Lath. Syn.* iv. p. 534. 25.

HABITAT

in insula S. Dominici.—4 pollices longa.

W.

the same with the *Organist*. But still we should doubt of the regular succession of musical sounds; for we had not the bird alive*. It was presented by the Count de Noë, who had brought it from the Spanish ~~district~~ of St. Domingo, where he told me it was very rare, and difficult to discover, or to shoot; because it is shy, and artfully conceals itself; it even turns round the branch as the hunter changes place, to elude his view: so that though there be several of these birds on a tree, it often happens that not one of them can be perceived.

The length four inches; the plumage blue on the head and neck; the back, the wings, and the tail, are stained with black, running into coarse blue; the forehead, the rump, and all the upper part of the body, coloured with orange-colour.---This short description is sufficient to discriminate it.

We find in Dupratz's History of Louisiana, the description of a small bird which he calls *Bishop*, and which we believe to be the same with the *Organist*. "The bishop is a bird smaller than the canary; its plumage is blue, verging on violet.---It feeds on many sorts of small seeds, among these *widlogouil* and *choupi-choul*, a kind of millet peculiar to the country. Its notes are so flexible, its warble so tender,

* This observation on the song of the *Organist* has been confirmed by Vieillot, who also noticed this bird in St. Domingo.

that when we once hear it, we become more reserved in our eulogiums on this nightingale. Its song lasts during a *Miserere*, and during the whole time it never makes an inspiration; it rests twice as long before it renews its music, the whole interval elapsed being about two hours."

Though Dupratz does not mention whether it gives the notes of the octaves as the Organist is said to do, we cannot doubt their identity; for the colours and size are the same in both. The scarlet tanager, which resembles it in point of song, is twice as large; and the arada, which has also a charming warble, is entirely brown. The Organist is then the only bird to which it can be referred.

THE JACARINI TANAGER*.

Fourth Small Species.

THIS bird was called *Jacarini* by the Brazilians. Marcgrave mentions it, but takes no notice of its habits. However, Sonnini de Manoncour, who observed it in Guiana, where it is very common, informs us that it prefers the cleared grounds, and is never seen in the large forests; that it lodges in the low trees, particularly the coffee-tree, and is distinguished by a singular circumstance, viz. that it springs from the branch on which it has perched a foot, or a

* CHARACTER SPECIFICUS.

TANAGRA JACARINA. T. atro-violacea, alis subtus albicantibus, cauda divaricata bifurca.—*Lath. Ind. Orn.* i. p. 429. No. 32.

TANAGRA JACARINA.—*Gmel. Syst.* i. p. 890.

TANGARA BRASILIENSIS NIGRA.—*Bris.* iii. p. 28. 16.

CARDUELIS BRASILIANA. (*Jacarini Marcg.*)—*Will.* p. 190.

Id. (Angl.) p. 258.—*Edw.* t. 306.

LE JACARINI.—*Buff. par Sonn.* xlviii. p. 350.

LE MOINEAU de CAYENNE.—*Pl. Enl.* 224. ?

JACARINI TANAGER.—*Lath. Syn.* iii. p. 238. 34.

HABITAT

in Brasilia.

W.

foot and a half vertically, and falls back to the same spot; and thus continues to rise and sink alternately, till it removes to another bush, where it repeats the same exercise. Each leap is attended with a feeble cry, expressive of pleasure, and by an expansion of the tail. This would seem to be the mode in which the male courts the female; which on the contrary remains at ease, or hops about like other birds. The nest is composed of dry herbs of a grey colour; it is hemispherical, and two inches in diameter; the female deposits in it two elliptical eggs, seven or eight lines long, and of a greenish-white, sprinkled with small red spots, which are numerous, and spread most profusely near the big end.

The Jacarini is easily known by its colour, which is black, and shining like polished steel, and uniform over the whole body, except only in the male the interior coverts of the wings, which are whitish; for the female is entirely grey, and differs so much in plumage that it might be taken for a different species. The male also becomes grey in the moult.

THE GOLDEN TANAGRE

Fifth Small Species.

It is called *Teité* in its native region of Brazil. The female differs widely from the male; for the upper part of the body is olive-green; the forehead, and the under part of the bill, tinged partly with yellow, and partly with olive-yellow: whereas in the male the body is

CHARACTER SPECIFICUS.

TANAGRA VIOLACEA. *T. violacea*, subtus et sincipite flavissima, retrigibus intermediis rectricibusque lateralibus intus albis.—*Lath. Ind. Orn.* i. p. 429. No. 33.

TANAGRA VIOLACEA.—*Linn. Syst.* i. p. 314. 5.—*Gmel. Syst.* i. p. 890.

TANGARA BRASILIENSIS NIGRO-LUTEA.—*Bris.* iii. p. 31. 18. t. 2. f. 2. (*mas.*)—*Pl. Enl.* 114. f. 2.

TEITEI.—*Raii Syn.* p. 92. 12.

LE TEITE'.—*Buff. par Sonn.* xlviii. p. 353.

TEITEI, GUIRANHEMGETA, GARAUNDI.—*Will.* p. 194.—*Id. (Angl.)* 266.

GOLDEN TANAGER.—*Lath. Syn.* iii. p. 239. 35.—*Edw.* t. 263. f. 1.

HABITAT

in Cayana, Surinamo, Brasilia.— $3\frac{1}{2}$ pollices longa. W.

of a deep blue ; and the forehead, the under part of the throat and belly, fine yellow.

In the young bird the colours are somewhat different. The upper part of the body is olive, sprinkled with ~~some~~ feathers of a deep blue ; and on the front the yellow is not distinctly marked. The feathers are only 'grey, with a little yellow at the tips ;' the under side of the body is of as fine a yellow in the young bird as in the adult.

The same changes of plumage are observed in this as in the preceding species. The nest is also very like that of the Jacarini, only it is not of so close a texture, and is composed of reddish herbs instead of grey. There is a variety of it, which, as well as the species, is called *Little Louis* by the Creoles of Cayenne. They are both very common in Guiana, Surinam, and Brazil ; they frequent the ground cleared near the farm-house, and feed on the small fruits which they find on the bushes ; they light in great numbers among rice-crops, which must be guarded against their visits.

They may be bred in the cage, where they are pleasant, if five or six be put together. They whistle like the bulfinch, and are fed on the plants called in Brazil *Paco* and *Mamao*.

THE NEGRO TANAGER.

Sixth Small Species.

THIS bird is of so deep a blue as to appear quite black, and it requires a close inspection to perceive some blue reflexions on its plumage; it has an orange spot on each side of the breast, but covered by the wing; so that the general appearance is uniform black.

It is of the same size with the preceding, and inhabits the same countries, but is much rarer in Guiana.

* CHARACTER SPECIFICUS.

TANAGRA CAYANENSIS. T. nigra nitida, pectore utrinque alisque subtus flavis.—*Lath. Ind. Orn.* i. p. 430. No. 34.

TANAGRA CAYANA.—*Lin. Syst.* i. p. 316. 14.

———— CAYANENSIS.—*Gmel. Syst.* i. p. 894.

———— NIGRA.—*Bris.* iii. p. 29. 17. t. 2.

f. 1.

LE TANGARA NEGRE'.—*Buff. Pl. Enl.* 114, f. 3.—*Buff. par Sonn.* xlviii, p. 350.

NEGRO TANAGER.—*Lath. Syn.* iii. p. 240. 36.

HABITAT

in Brasilia, Mexico, Guiana.

THESE are all the great, the middle-sized, and the small Tanagres, whose species can be ascertained with accuracy. A few remain that have been described by Brisson, but on the credit of authors whose accounts are vague and incorrect: I shall, however, enumerate them, without pretending to decide the species.

First, *The Grass Bird*, or *Xiuhtototl* of Fernandez. All the body is blue, scattered with some fulvous feathers; those of the tail black, and tipped with white; the under part of the wings cinereous, the upper part variegated with blue, with fulvous, and with black; the bill short, somewhat thick, and of a rusty white; the legs are grey.

This author adds, that it is somewhat larger than our house-sparrow, that it is good eating, that it is raised in the cage, and that its song is not unpleasant.---It is impossible from such an imperfect account to decide whether it belongs to the genus of tanagres.

Secondly, *The Mexican Bird* of Seba, of the size of a Sparrow. The whole body is blue, varied with purple, except the wings, which are varied with red and black; the head is round; the eyes and the breast are covered above and

This is the *Carulean Tanagre* of Latham, the *Tanagra Canora* of Gmelin, and the *Tanagra Carulea Nova Hispania* of Brisson.

below with a blackish down; the inferior coverts of the wings, and of the tail, are yellowish ash-colour. It is ranged among the singing birds,

So vague an account cannot warrant us to conclude that it belongs to the genus of the tanagres; for the only points of analogy are, that it inhabits Mexico, and is of the size of a sparrow: and Seba's figure, as indeed all those of that author, can convey no distinct idea.

Thirdly, *The Brazilian Guira-Perea* of Marcgrave. It is about the bulk of a lark; its bill black, short, and rather thick; all the upper part of the body, and the belly, of a deep yellow, spotted with black; the under part of the head and neck, the throat, and the breast, black; the wings and tail composed of quills of blackish brown, and some edged exteriorly with green; the legs are of a dull cinereous.

It does not appear from this short description whether this bird ought to be referred to the bullfinches or to the tanagres*.

Fourthly, *The Bird smaller than the Goldfinch, or the Quatoztli of Brazil*, according to Seba. The half of its head is decorated with a white crest; the neck is of a light red, and the breast of a fine purple; the wings deep red and pur-

* This is the *Yellow Tanager* of Latham, the *Tanagra Flava* of Gmelin, and the *Brasiliensis* of Brisson.

ple; the back and the tail yellowish black; and the belly light yellow; the bill and legs are yellow. Seba adds, that it inhabits the mountains of *Tetzocano* in Brazil.

We shall observe, first, that the name *Quatzotli*, which Seba gives to this bird, is not Brazilian, but Mexican; and secondly, that the mountains of *Tetzocano* are in Mexico, and not in Brazil. It is probable therefore that he was mistaken in calling it a Brazilian bird.

Lastly, from the description and the figure given by Seba, we should rather range this bird in the genus of the manakins than in that of the tanagres*.

Fifthly, *The Calatti* of Seba, which is nearly of the size of a lark, and has a black crest on the head; and the sides of the head, and the breast, of a fine sky-colour: the back is black, variegated with azure; the superior coverts blue, with a purple spot; the quills of the wings variegated with green, with deep blue, and with black; the rump variegated with pale blue and green, and the belly with snowy white; the tail is of a beautiful form, brown terminated with rufous.

Seba adds, that this bird, which was sent from Amboyna, is of an elegant figure (his plate is a

* This is the *White-headed Tanagre*, or *Tanagra Albifrons* of Latham, the *Tanagra Leucocephala* of Gmelin, and the *Tanagra Brasiliensis Leucocephalus* of Brisson.

very bad one), and that its song is also pleasant. This is enough to exclude the *Calatti* from the tanagres, which are found only in America, and in no part of the East Indies*.

Sixthly, *The Anonymous Bird* of Hernandez. The upper part of its head is blue; the upper part of the body is variegated with green and black, the under part yellow, and spotted with white; the wings and the tail are deep green, with spots of lighter green; the legs are brown, and the toes and nails very long.

Hernandez subjoins in a corollary, that this bird has a black-hooked bill, and that if it were more curved, and if the toes were placed as in the parrots, he should not hesitate to regard it as a real parrot.

From these indications, we should refer this bird to the shrikes.

Seventhly, *The Brown Cardinal* of Brisson, which is a tropic bird, and not a tanagre†.

* This is the *Amboina Tanagre* of Latham, the *Tanagra Amboinensis* of Gmelin, and the *Tanagra Amboinensis Cærulea* of Brisson.

† This is the *Military Tanagre* of Latham, the *Greater Bulfinch* or *Skirley* of Edwards, the *Tanagra Militaris* of Linpæus and Gmelin, and the *Cardinalis Fuscus* of Brisson.

THE SILENT BIRD*.

WE cannot refer this bird to any genus, and we place it after the tanagres only because its exterior appearance is similar; but its habits are totally different. It never appears in the cleared spots, and remains always alone in the heart of the forests far from settlements, and has no song or cry. It rather hops than flies, and seldom rests on the lowest branches of the bushes, for it commonly continues on the ground. It resembles the tanagres, however, in the shape of its body and feet, and in the slight scalloping on both sides of the bill, which is longer than the bill of the tanagres.—It is a native of the same climate of America.

* CHARACTER SPECIFICUS.

TANAGRA SILENS. *T. viridis, capite subtusque incana, superciliis vitta oculari fasciaque, jugulari nigra.*—*Lath. Ind. Orn. i. p. 432. No. 42.*

L'OISEAU SILENTIEUX—*Buff. par Sonn. xviii. p. 377. pl. 117. f. 1.*

LE TANGARA de la GUIANE.—*Pl. 742.*

HABITAT

in Guiana.—7 pollices longa,

W.



THE HUNTING

THE ORTOLAN BUNTING *

It is very probable that our Ortolan is no other than the *Miliaria* of Varro, so called because it was fattened with millet seeds: it seems also to be the same with the *Cenchræmus* † of Aristotle and Pliny, which is evidently derived

CHARACTER SPECIFICUS.

EMBERIZA HORTULANA. *E. remigibus nigris, bus margine albidis, rectricibus nigris, lateralibus duabus extremis albis.*—*Lath. Ind. Orn.* i. p. 399. No. 5.

EMBERIZA HORTULANA.—*Gmel. Syst.* i. p. 869.

HORTULANUS.—*Bris.* iii. p. 269. 4.—*Rau Syn.* p. 94. 8.—*Will.* p. 197. t. 40.

L'ORTOLAN.—*Buff. par Sonn.* xlviii. p. 380. pl. 118. f. 1.—*Pt. Enl.* 247. f. 1.

ORTOLAN BUNTING.—*Arct. Zool.* ii. p. 367. D.—*Will. (Angl.)* p. 270. t. 40.—*Lath. Syn.* iii. p. 166. 5. *Id. Sup.* p. 167.

HABITAT

in Europa

† In German, *Fel-Ammer* (Fat Bunting), *Fut-Vogel*; in Polish, *Ogrodniczek*.

† Aristotle spells the name *Kυρρηναιος*, not *Kυρρεαιος*; Pliny indeed writes it both *Cynchramus* and *Cenchræmus*; yet the etymology given in the text seems doubtful.

from *Κεϋχευς*, that likewise signifies *millet*. And these etymological conjectures acquire force, from the correspondence between the properties of these birds.

1. The *Cenchræmus* is a bird of passage, which, according to Aristotle and Pliny, accompanies the quails; in the same way as the rails, the snipes, and other migratory birds*.

2. The *Cenchræmus* utters cries during the night; which has given to these naturalists occasion to say, that it continually calls to the companions of its journey, and encourages them to advance.

3. Lastly, in the time of Varro, the *Miliarie*, as well as the quails and thrushes, were fattened, and sold at high prices to the luxurious†.

All these properties belong to our Ortolan :

It is a bird of passage, which a multitude of naturalists and of fowlers admit : it sings during the night, as Kramer, Frisch, and Salerne, affirm‡ : and lastly, when fat, it is esteemed a delicious morsel§. The Ortolans are not always

* Hist. Anim. lib. viii. 12.—Hist. Nat. lib. x. 23.

† De Re Rustica, lib. iii. 5.

‡ I could cite also the Sieur Burel, gardener at Lyons, who has sometimes above an hundred Ortolans in his volery, and who communicated to me, or confirmed, many peculiarities of their history.

§ It is pretended those caught in the plains of Toulouse are better flavoured than those of Italy. In winter they are very scarce, and consequently very dear : they are dispatched to Paris by post in a small trunk filled with millet, according to the historian of Languedoc, tome i. p. 46; in the same

caught fat; but there is an infallible method to bring them into that state. They are shut up in a room from which the external light is excluded, but which is constantly illuminated with lanterns, so that they cannot distinguish the night from the day: they are allowed to run about and pick up the oats and millet that are regularly scattered in the apartment. With this regimen they soon grow excessively fat, and if not prevented would even die of extreme corpulence*. When killed at the proper time, they are most delicate, delicious balls of fat, but rather too luscious, and apt to cloy.—Thus Nature guards against intemperance by the satiety and disgust which constantly attend the excess of pleasure.

The fat Ortolans are easily dressed in the water-bath, the sand-bath, in hot ashes, &c. And they may be also very well prepared in the shell of a real or an artificial egg, as was formerly practised with the beccafigos or epicurean warblers†.

It cannot be denied that the delicacy of their flesh, or rather of their fat, has contributed more to their celebrity, than the charms of their warble. However, when kept in the cage, they

manner as they are sent from Bologna and Florence to Rome in boxes full of corn, according to Aldrovandus.

* It has been said that they are sometimes fattened to weigh three ounces.

† Petronius.

have a song like that of the yellow bunting, which, as I have already observed, they repeat night and day. In countries where they are numerous, and consequently well known, as in Lombardy, they are not only fattened for the table, but trained to sing; and Salerne observes that there is a sweetness in their notes. In this case they are better treated, and not being suffered to grow corpulent, their lives are prolonged. If they are kept a considerable time beside other birds, they adopt something of their song, especially when they are young; but I know not whether they ever learn to articulate words, or catch the notes of our music.

These birds make their appearance at the same time with our swallow, or a little after, and they either accompany or precede the quails. They enter Lower Provence, and advance as far as Burgundy, especially in the warm districts, which are planted with vineyards; however, they touch not the grapes, but eat the insects that prey upon the leaves and tendrils of the vines. On their arrival, they are rather lean, because then is the season of their loves*. They build in the vines, and their nests are pretty regular, and similar to those of the lark; they lay four or five greyish eggs, and have commonly two hatches in the year. In other

* They may however be fatted at this time, by feeding them first with oats, then with hemp-seed, with millet, &c.

countries, as in Lorraine, they place their nests on the ground, and prefer the corn-fields.

The young family begins to direct its course to the southern provinces as early as the first of August; but the parents do not commence their journey before the end of September. They remove into Fores, and halt in the neighbourhood of St. Chaumont and St. Etienne; they alight among the oats, of which they are very fond, and remain till the cold weather begins to set in; during which time they become so fat and inactive, that they might be knocked down with sticks. At this time they are proper for the table, especially the young ones; but they are more difficult to preserve than those which are caught in their first entrance. In Bearn also, the Ortolans appear twice annually, passing in May, and repassing in October.

Some have supposed these birds to be natives of Italy, whence they spread into Germany and other countries; and this is not improbable: for though they breed at present in Germany, they are caught promiscuously with the buntings and chaffinches*; but Italy has been cultivated from a more remote antiquity. Besides, it is not uncommon for these birds, when they discover a suitable country, to adopt it and settle in it. Not many years since, they were thus

* Frisch.—Kramer ranks them among the birds which occur in Lower Austria; and he adds, that they live in the fields, and perch upon the trees which grow in the midst of meadows.

naturalised in a small district of Lorraine, lying between Dieuse and Mulée; where they breed, raise their young, depart in the fall, and return again in the spring*.

But their journeys are not confined to Germany; Linnæus relates that they inhabit Sweden, and fixes the month of March for the period of their migration†. We must not however suppose that they are spread through all the countries between Sweden and Italy: they return constantly into our southern provinces; sometimes their course lies through Picardy, but scarcely are they ever seen in the northern part of Burgundy where I live, in Brie, or in Switzerland, &c.‡ They may be caught either with the noose, or with limed-twigs.

In the male, the throat is yellowish, edged with cinereous; the orbits also yellowish; the breast, the belly, and the sides, rufous, with some speckles, whence the Italian name *Tordino*||; the lower coverts of the tail of the same colour, but lighter; the upper part of the body variegated with brown-chesnut, and blackish; the rump, and the superior part of the coverts of the tail, uniform brown-chesnut; the quills of the wings blackish, the large ones edged exteriorly with grey, the middle ones with rufous; their superior coverts variegated with brown and rufous; the inferior ones with sulphur-yellow; the

* Dr. Lottinger.

† Fauna Suecica.

‡ Gesner.

|| From *Tordo*, a Thrush.

quills of the tail blackish, edged with rust, the two outer ones edged with white; lastly, the bill and legs are yellowish.

The female has rather more cinereous on the head and on the neck, and no yellow spot below the eye; but, in general, the plumage of the Ortolan is subject to many varieties.

The Ortolan is smaller than the house-sparrow. Length, from six inches and one-fourth, to five inches and two-thirds; the bill five lines; the leg nine lines; the middle toe eight lines; the alar extent nine inches; the tail two inches and a half, consisting of twelve quills, and projecting eighteen or twenty lines beyond the wings*.

* It is six inches and one-fourth long. It builds, in low bushes, or on the ground, a nest like that of the sky-lark, and lays four or five grey eggs.

The Ortolans fly very high, and in small parties of four or five: they fly against the wind. The bird-catchers know how to distinguish their flight, and pretend that they never pass except the wind is to the northward. It is thought good sport when they take ten or twelve of these birds in a day; and the term of their passage scarcely exceeds a fortnight. W

VARIETIES OF THE ORTOLAN.

I. THE YELLOW ORTOLAN. Aldrovandus, who observed this variety, says that its plumage was straw-coloured, except the wing-quills, which were tipped with white, and the outermost edged with the same colour: another peculiarity, the bill and legs were red.

II. The WHITE ORTOLAN. Aldrovandus compares its whiteness to that of the swan, and says, that all its plumage was uniformly the same. Burel of Lyons, who has long been employed in raising Ortolans, assures me that he has seen some grow white from age.

III. The BLACKISH ORTOLAN. Burel has seen others, which were undoubtedly of a different character from the preceding, and which became blackish as they grew old. In the one observed by Aldrovandus, the head and neck were green, with a little white on the head and on two quills of the wing; the bill was red, and the legs cinereous; all the rest was blackish.

IV. The WHITE-TAILED ORTOLAN.

It differs from the common Ortolan by the colour of its tail, and by the tints of its plumage, which are fainter.

V. I have observed one, in which the throat was yellow, mixed with grey; the breast grey, and the bellows rufous.

THE REED BUNTING *†

UPON comparing the different birds of this family, I have perceived so many striking relations between that of the present article and those of the four following, that I should have

CHARACTER SPECIFICUS.

EMBERIZA SCHÆNICLUS. E. capite nigro, corpore griseo nigroque, rectricibus extimis macula alba cuneiformi.—*Lath. Ind. Orn.* i. p. 402. No. 13.

EMBERIZA SCHÆNICLUS.—*Gmel. Syst.* i. p. 881.

PASSER TORQUATUS, sive ARUNDINACEUS.—*Raii Syn.* p. 93. A. 3.—*Will.* p. 196.—*Bris.* iii. p. 274. 5.

L'ORTOLAN de ROSEAUX.—*Buff. Pl. Enl.* 247. 2, (mas.) 477. 2. (femina).—*Buff. par Sonn.* xlix. p. 7. pl. 118.

REED BUNTING.—*Br. Zool.* No. 120.—*Arct. Zool.* ii. p. 368. E.—*Lath. Syn.* iii. p. 173. 9.—*Id. Sup.* p. 137.—*Bew. Birds,* i. p. 149.

HABITAT

in Europa; in Anglia quoque habetur, in arundinetis nidificans.

† In Greek, Σχοινικλος, Σχοινικος, Σχοινας (from Σχοινος, a rush); Ελεῦθος, Σχοινικλος (Rush Sparrow); Βαλις (perhaps from Βαλος, a thorn); in German, Rhor-Spar, Rhor-Sperling, or Rhor-Spatz (i. e. Reed Sparrow); Weiden-Spatz (Willow Sparrow); in Swedish, Sæfsparf; in Polish, Wrobel Trzeinnis.

referred them all to the same species, if I could have collected a sufficient number of facts to justify this innovation. It is extremely probable that all these would propagate with each other, and that the cross-breed would be prolific. But still I observe that they continue for a length of time in the same country without intermixing; that they retain their discriminating characters; and that their instincts are not quite the same. I shall therefore follow the common division, but protest against the multiplication of the number of species; which is so fertile a source of error and confusion.

The Reed Ortolans delight in fens, and nestle among the rushes; however, they sometimes resort to the high grounds in rainy seasons. In spring they are seen by the sides of the roads; and in August they feed in the corn-fields. Cramer tells us that they are fondest of millet. In general they seek their food, like the buntings, along the hedges, and in the cultivated spots. They keep near the ground, and seldom perch except on the bushes. They never assemble in flocks, and scarcely more than three or four are seen at once. They arrive in Lorraine about the month of April, and depart in autumn; however, there are always some of them which continue in that province during the winter.— They are found in Sweden, Germany, England, France, and sometimes in Italy, &c.

It is found also in South Russia, and even in Siberia.

W.

This little bird is almost perpetually on the watch, to discover its foe; and when it describes some fowlers, it makes an incessant cry, which is not only teasing, but sometimes scares away the game. I have seen sportsmen quite out of patience at the notes of this bird, which are somewhat like those of the sparrow. The Reed Bunting has besides a pleasant warble in the time of hatching, about the month of May.

This bird jerks its tail upwards and downwards as quick as the wagtails, and with more animation.

In the male, the upper part of the head is black; the throat and the fore-part of the neck variegated with black and rusty grey; a white collar on the upper part of the neck only: a sort of eye-brow and a bar of the same colour under the eyes; the upper part of the body variegated with rufous and black; the rump and the superior coverts of the tail variegated with grey and rusty; the under part of the body white, shaded with rusty; the sides slightly spotted with blackish; the quills of the wings brown, edged with different shades of rufous; the quills of the tail the same, except the two outermost on each side, which are edged with white; the bill is brown, and the legs are of a dark flesh-colour.

The female has no collar; its throat is not so black, and its head is variegated with black and light rufous: the white which occurs in its

plumage is not pure, but always sullied with a rufous cast.

Length, from five inches three-fourths to five inches *: the bill four lines and a half; the leg nine lines; the middle toe eight lines; the alar extent nine inches; the tail two inches and a half, consisting of twelve quills, and projecting about fifteen lines beyond the wings †.

* When two lengths are expressed, the greatest means from the point of the beak to the end of the tail; the least, from the same point to the end of the claws.

† It is found as high as Denmark; it is frequent in the southern parts of Russia; and it visits Britain in the summer. It suspends its nest between four reeds, a few feet above the water; this nest is made of grass-stalks, lined with the down of reeds. The bird lays four or five eggs of a blueish-white, variegated with purple streaks. It sings, especially at night.

THE HOODED BUNTING *.

A SORT of hood of a fine black covers the head, throat, and neck, and then, tapering to a point, descends on the breast, nearly in the same manner as in the reed ortolan; and this black is never interrupted, except by a small white spot on each side, very near the opening of the bill; the rest of the under part of the body is whitish, but the sides are speckled with black. The hood which I have mentioned is edged with white behind; all the rest of the upper part of the body variegated with rufous and blackish; the quills of the tail are blackish, but the two intermediate ones are edged with rusty; the two outermost have a large oblique spot; the three others are uniform throughout.

Total length five inches; the bill six lines, entirely black, the tarsus nine lines; the tail two inches, rather forked, and projects about thirteen lines beyond the wings.

* COGUELUCHE.—*Buff. par Sonn.* xlix. p. 17.

A simple variety of the Reed Bunting. W.

† This bird is in the cabinet of Dr. Meuduyt, who has called it the Siberian Reed Ortolan. I have not ventured to adopt this appellation, lest the subject should be found to be only a variety of our reed ortolan.

THE MUSTACHOE BUNTING

THIS bird is distinguished by a black spot at the ears, and a line of the same colour which extends on each side of the bill like mustachoes. The lower part of the body is cinereous; the upper part of the head and of the body variegated with rufous and blackish; the quills of the tail are divided by the same colours, the rufous being exterior and apparent, and the blackish being within and concealed. There is also a little whitish round the eyes, and on the great coverts of the wings.

This bird feeds on grain; it is fond of perching; and in the month of April its song is pleasant.

* CHARACTER SPECIFICUS.

EMBERIZA PROVINCIALIS. E. griseo nigraque varia, subtus maculaque alarum alba, macula suboculari fasciaque maxillari nigris.—*Lath. Ind. Orn.* i. p. 403. No. 15.

EMBERIZA PROVINCIALIS.—*Gmel. Syst.* i. p. 881.

LE GAVOUR de PROVENCE.—*Buff. Pl. Enl.* 656. 1.—*Buff. par Sonn.* xlix. p. 19.

MUSTACHOE BUNTING.—*Lath. Syn.* iii. p. 175. 10.

HABITAT

in Galloprovincia.—4½ pollices longa.

This is a new species, introduced by M. Guys.

Total length four inches and three-fourths; the bill five lines, the tail twenty lines, somewhat forked, and stretching thirteen lines beyond the wings*.

* Sonnini observed these birds flying by couples near Toulon. He says they are tame; their flight short, low, and like that of the sparrow.

THE LESBIAN BUNTING

THIS bird differs in several respects from the preceding: the black which appears on the sides of the head is disposed in three narrow stripes, parted by white spaces; the rump and the superior coverts of the tail are shaded with several rufous tints. But the difference of habits affords a more marked distinction; the Lesbian Bunting does not begin its song before the month of June; it is more rare and shier, and its repeated cries warn the other birds of the approach of the kite, of the buz-

* CHARACTER SPECIFICUS.

EMBERIZA LESBIA. E. griseo nigroque varia, subtus orbitisque alba, sub oculis albo nigroque ter striata, rectricibus lateralibus partim albis.—*Lath. Ind. Orn.* i. p. 404. No. 16.

EMBERIZA LESBIA.—*Gmel. Syst.* i. p. 882.

LE MITILENE de PROVENCE.—*Buff. Pl. Enl.* 656. 2
Buff. par Sonn. xlix. p. 21.

LESBIAN BUNTING.—*Lath. Syn.* iii. p. 176. 11.

HABITAT

cum præcedente, cui multum affinis, at rarior.

W.

zard, or of the hawk ; in which circumstance it resembles the reed bunting. The present inhabitants of Mytilene, or ancient Lesbos, employ it, on this account, as a sentinel for their poultry, but take the precaution to shut it in a strong cage, lest itself become the prey of the ferocious invader.

THE LORRAINE BUNTING*.

LOTTINGER sent us this bird from Lorraine, where it is very common.—Its throat, the fore-part of its neck, and its breast, are of a light ash-colour, speckled with black: the rest of the under part of its head and body rufous, speckled with black: the space round the eyes of a lighter colour; there is a black streak below the eyes: the small coverts of the wings are of a light cinereous without speckles; the others parted by rufous and black; the first quills of the wings black, edged with light cinereous, the following with rufous; the two middle quills of the tail rufous, edged with grey, the others partly black, and partly white.

* CHARACTER SPECIFICUS.

EMBERIZA LOTHARINGICA. E. nigro maculata, supra rufa, subtus cinerascens, striga per oculos maxillæque inferioris nigra, rectricibus lateralibus albo nigroque variis.—

Lath. Ind. Orn. i. p. 404. No. 17.

EMBERIZA LOTHARINGICA.—*Gmel. Syst.* i. p. 882.

L'ORTOLAN de LORRAINE.—*Buff. Pl. Enl.* 511. f. 1. (mas.)

—*Buff. par Sonn.* xlix. p. 23. pl. 119. f. 1.

—de PASSAGE.—*Pl. Enl.* 511. Y. 2. (femina.)

LORRAINE BUNTING.—*Lath. Syn.* iii. p. 176. 12.

HABITAT

in Lotharingia.—6½ pollices longa.

W.

but the outermost have always a greater share of white; the bill is rufous-brown, and the legs of a lighter shade.

Total length six inches and a half; the bill five lines and a half; the tail two inches and four lines, and exceeds the wings by fifteen lines.

The female has a sort of collar mottled with rufous and white; all the rest of the under part of the body is rusty-white; the upper part of the head is variegated with black, with rufous, and with white, but the black disappears behind the head, and the rufous grows more dilute, so that an almost uniform rusty-grey is produced. It has white eye-brows; the cheeks are deep-rufous; the bill orange-yellow at its base, and black at its point; the edges of the lower mandible are adapted into the upper; the tongue is forked, and the legs are black.

One of these birds was brought to me the 10th of January; it had been just killed on a stone in the middle of the high-road; it weighed an ounce; its intestines measured ten inches; it had two very small *cæca*; the gizzard was very thick, about an inch long, and seven lines and a half broad, and filled with vegetable substances, and many small pebbles; the cartilaginous membrane in which it was sheathed had more adhesion than is usual in birds.

Total length five inches ten lines; the bill five lines and a half; the alar extent twelve inches; the tail two inches and a half, somewhat

forked, and projecting about an inch beyond the wings; the hind nails four lines and a half longer than the toe*.

* This bird is generally known in Lorraine by the name of *Figbeak*. Vast numbers of them are seen in the autumn, in the fields near the woods.

W.

THE LOUISIANE BUNTING

THIS American bird has the same mottling of whitish and black on its head that is common to almost all our ortolans; but its tail, instead of being forked, is on the contrary somewhat tapered. The top of the head is marked with a black horse-shoe, which opens beside the bill, and its branches, extending above the eyes, coalesce at the back of the head; there are some other irregular spots below the eyes; rufous predominates on all the lower part of the body, being deeper on the breast, and lighter above and below it; the upper part of the body is va-

CHARACTER SPECIFICUS.

EMBERIZA LUDOVICIA. *E. grisea, subtus pallida pectore rufo, capite supra arcu nigro.*—*Lath. Ind. Orn. i. p. 404. No. 18.*

EMBERIZA LUDOVICIA.—*Lin. Syst. i. p. 310. 10.*—*Gmel. Syst. i. p. 878.*—*Bris. iii. p. 278. G. t. 14. f. 3.*

L'ORTOLAN de la LOUISIANE.—*Buff. Pl. Enl. 158. f. 1.*—*Buff. par Sonn. xlviii. p. 26.*

LOUISIANE BUNTING.—*Arct. Zool. ii. No. 227.*—*Lath. Syn. iii. p. 177. 13.*

HABITAT

in Ludovicia.

W.

tinged with rufous and black, and so are the great and middle coverts and the quills of the wings next the body; but all the other quills and the small coverts of the wings are black, as well as the rump, the tail, and its superior coverts; the bill has blackish spots on a rufous ground; the legs are cinereous.

Total length five inches and one-fourth; the bill five lines; the tail two inches and one-fourth, consisting of twelve quills, somewhat taper, and projects fourteen lines beyond the wings.

THE YELLOW-BELLIED CAPE BUNTING*.

WE received this from Sonnerat. It is the most beautiful of the genus; its head is of a glossy black, with five white rays nearly parallel, the middle extending to the lower part of the neck: all the upper part of the body is yellow, but the deepest on the breast, from which it spreads upwards and downwards, growing more dilute by imperceptible degrees, so that the origin of the neck, and the last of the inferior coverts of the tail, are almost white; a grey transverse bar separates the neck from the back, which is brown-rufous, variegated with a lighter colour; the rump is grey; the tail brown, edged with white on both sides, and delicately tipped with the same; the small coverts of the wings ash-grey; the uncovered part of the middle ones white; the great ones brown, edged

* CHARACTER SPECIFICUS.

EMBERIZA CAPENSIS. E. supra varia, subtus flava, lateralibus capitis strigis tribus nigris in maculam ad nucham coeuntibus.—*Lath. Ind. Orn.* i. p. 407. No. 28. Var. β.

L'ORTOLAN à VENTRE JAUNE du CAP de B. E.—*Buff.* par *Sonn.* xxix. p. 28.—*Pl. Enl.* 664. f. 2. (mus.)—*Lath. Syn.* iii. p. 186. A.

with rufous; the quills of the wings blackish, edged with white, except those next the body, which are edged with rufous; the third and fourth are the longest of all. With respect to the quills of the tail, the outermost, and the one next it on each side, are shorter than the rest; so that were the tail equally divided, though the whole be somewhat forked, each of the parts is taper; the greatest difference between the length of the quills is three lines.

In the female the colours are less vivid and distinct. Total length six inches and one-fourth; the bill six lines; the tail two inches and three-fourths, consisting of twelve quills, and exceeding the wings fifteen lines; the *tarsus* eight or nine lines; the hind nail is the strongest of all.

THE CAPE BUNTING.

THIS bird is as remarkable for dusky ill-defined colours as the preceding is conspicuous for the richness and lustre of plumage : it has, however, two black streaks, the one above, and the other below the eyes, which characterise the genus. The upper part of its head and neck is variegated with dirty grey, and blackish ; the upper part of the body black, and yellowish-rufous ; the throat, the breast, and all the under part of the body, dirty grey ; the superior coverts of the wings rufous ; the great coverts, and the quills of the wings, and the quills of the

* CHARACTER SPECIFICUS.

EMBERIZA CAPENSIS. E. nigro rufescenteque varia, sub-
tus grisea, gula albida, fascia oculari maxillarumque nigri-
cante. — *Lath. Ind. Orn.* i. p. 407. No. 28.

EMBERIZA CAPENSIS. — *Gmel. Syst.* i. p. 878.

HORTULANUS CAPITIS B. SPEI. — *Bris.* iii. p. 280. 7. t. 14.
f. 4.

L'ORTOLAN du CAP de B. ESP. — *Buff. Pl. Enl.* 153. f. 2.
— *Buff. par Sonn.* xlix. p. 31.

CAPE BUNTING. — *Lath. Syn.* iii. p. 185. 23.

HABITAT

ad Caput B. Spei. — 5½ pollices longa.

W.

tail, blackish; edged with rusty; the bill and legs blackish.

Total length five inches and three-fourths; the bill five lines; the alar extent near nine inches; the tail two inches and a half, consisting of twelve quills, and exceeds the wings by fifteen lines*.

THE SNOW BUNTING

THE mountains of Spitzbergen, the Lapland Alps, the shores of Hudson's-bay, and perhaps countries still more northerly, are, during the

* CHARACTER SPECIFICUS.

EMBERIZA NIVALIS. *E. remigibus albis, primoribus extorsum nigris, rectricibus nigris, lateralibus tribus albis.*
—*Lath. Ind. Orn.* i. p. 397. No. 1.

EMBERIZA NIVALIS.—*Gmel. Syst.* i. p. 866.—*Phil. Trans.* lxii. p. 403. 11.

HORTULANUS NIVALIS.—*Bris.* iii. p. 285. 9.

L'ORTOLAN DE NEIGE.—*Buff. Pl. Enl.* 497. f. 1.—*Buff. par Sonn.* xlix. p. 34.

PIED MOUNTAIN FINCH.—*Alb.* iii. t. 71.

SNOW BUNTING.—*Br. Zool.* i. No. 122. t. 50.—*Arct. Zool.* ii. No. 222.—*Edw.* t. 126.—*Lath. Syn.* iii. p. 161.—*Id. Sup.* p. 157.—*Bew. Birds,* i. p. 152.

HABITAT

in Europa boreali, alpibus Lapponiæ, Spitsburgiæ, ad sinum Hudsonis, alibique; rarius in Anglia. W.

† In Polish, *Śniegula, Śnieżniczka*; in Danish, *Sneetok, Winterfugel*; in Swedish, *Snoesparf*; in Norwegian, *Sneefugl, Fialster, Sneespurre, Sneetiting, Salskriger*; in Icelandic, *Sino-tytlingur, Soelskrikia, Tytlings-blike*; in Laplandic, *Alpe, Alaipg*; in Dalecarlien, *Illwars-vogel*; in Scanian, *Sioð-lærka*; in Greenlandish, *Kop-anoarsuk.*

summer months, the favourite abodes of this bird. The excessive severity of these inhospitable climates changes part of its plumage into white in winter*. It has some variety of appearance from the diversified intermixture of white, black, or rusty; and the combinations of these colours are affected by the season, and by the temperature of the air.

In winter the head, the neck, the coverts of the wings and all the under part of the body, are in the male white as snow, with a light and almost transparent tint of rusty on the head only; the back black; the quills of the wings, and of the tail, partly black, partly white. In summer the head, the neck, the under part of the body, and even the back, are stained with transverse rusty waves of various intensity, but never so deep as in the female, of which it is the predominant colour, and disposed in longitudinal stripes. In some subjects the neck is cinereous, the back cinereous variegated with brown; a purple tinge round the eyes; a reddish cast on the head†, &c. The colour of the bill is also

* Those white feathers are black at the base; and sometimes the black shines through the white, and forms a multitude of little spots, as in the individual painted by Frisch, under the name of the *Spotted White Bunting*. At other times the black collar of the base of each feather extends on a great part of the wing; so that a blackish colour is thus produced over all the under side of the body, as in the blackish and yellowish finch of Aldrovandus.—*Lab.* xviii. pp. 817. 818.

† Schwanckfeld.

variable; sometimes yellow, sometimes cinereous at the base, and generally black at the point. In all, the nostrils are round, somewhat prominent, and covered with small feathers; the tongue is a little forked; the eyes are small and black; the legs black, or blackish.

These birds leave their mountains when the snows and frosts will not permit them to procure their food. This is the same with that of the white grouse, and consists of the seeds of a species of birch*, and of other seeds. When kept in the cage they are very well reconciled to oats, and pluck the heads very expertly, with green-pease, hemp-seed, millet, and the seeds of dodder†; but hemp-seed fattens them too fast, and occasions their death.

They return in spring to their icy summits. Though they do not always hold the same route, they are commonly seen in Sweden, in Saxony, in Lower Silesia, in Poland, in Red Russia, in Podolia, and in Yorkshire‡. They are very rare in the south of Germany, and almost entirely unknown in Switzerland and Italy§.

In the time of their passage they keep con-

* The *Betula Nana*, or Dwarf Birch, a native of the arctic regions.

† *Cuscuta Europæa*.—LINN.

‡ Willughby killed one in Lincolnshire. Ray says that numbers of them are caught during winter in Yorkshire. Johnson informed Willughby that some are seen on the chain of the Northumbrian mountains.

§ Gesner and Aldrovandus.

startly along the roads, picking up small seeds, and every sort of food. This is the proper season for catching them. They are prized on account of the singularity of their plumage, and the delicacy of their flesh, and not for the sake of their song, which consists in an unmeaning cluck, or in a shrill cry resembling that of the jay, which they utter when handled: but to judge fairly of their warble, we ought to hear them in the season of love, when the warmth of passion inspires, and softens the native strains. We are ignorant also of the particulars of their breeding: it is undoubtedly in the countries where they spend the summer, but there are not many observers in the Lapland Alps.

These birds do not perch; they continue always on the ground, where they run and trip about like our larks, to which they are similar also in their port, in their size, in their long spurs, &c. but differ in the shape of the bill and tongue, in their plumage, in their migrations, in their arctic abodes, &c*.

It is observed, that they sleep little or none in the night, and begin to hop by the earliest dawn. Perhaps this is the reason why they prefer the lofty mountains of the north in summer, where the day lasts the whole season.

Total length six inches and a half; the bill five lines; on the palate is a small tubercle that

* Some able naturalists have ranged the Snow Oriole with the larks: but Linnæus has with great propriety referred it to the Buntings.

distinguishes the genus; the hind toe is equal to that of the middle, and the nail is much longer, and less hooked; the alar extent eleven inches and one-fourth; the tail two inches and two-thirds, somewhat forked, consisting of twelve quills, and projecting ten lines beyond the wings*.

* These birds are of the size of the chaffinch. They probably breed in Spitzbergen, and certainly in Greenland, where they make their nests in the fissures of the mountain rocks, employing grass for the outside, feathers for the inside, and the down of the arctic fox for lining. They lay five white eggs, spotted with brown. They sing sweetly, sitting on the ground.

In autumn the Snow Buntings issue from their frozen retreats, and visit the northern parts of Europe. They appear in Sweden in severe weather, and are thence called *Ill-vars-vogel*, and *Hard-vars-fogel*; and many are caught near the sea-shores. They enter Britain by the north of Scotland; at first they are lean, but soon grow fat and delicious; the Highlands abound with them.

The Snow Buntings appear also at Hudson's-bay in April, retire northward in May to breed, and pay another visit in September. They live in vast flocks, feed on grass-seeds, &c. and are easily caught.

Their colour, being produced by the degree of cold to which they are exposed, is necessarily variable.

VARIETIES OF THE SNOW BUNTING.

It will be readily perceived, from what we have said in regard to the winter and summer dress of these birds, that we are not here to consider the varieties which belong to the two principal epochs, or the intermediate terms; these being only the shades which mark the progressive influence of cold or heat.

* I. The JACOBINE BUNTING *. It is a variety of climate. Its bill, breast, and belly, are white; the legs grey, and all the rest black. It appears every winter in Carolina and Virginia, and retires in the summer to breed, probably in the north.

* This is the *Black Bunting* of Pennant and Latham, and the *Snow Bird* of Catesby and Kalm; it is the *Emberiza Hyemalis* in the Linnæan system, and the *Hortulanus Nivalis Niger* of Brisson. Specific character:—"It is black, its belly white." These birds breed in the northern parts of America, winter in the state of New-York, and in very severe seasons visit Virginia and the Carolinas in immense bodies. They frequent the gardens and hillocks, to pick up the scattered grass-seeds. The Americans call them *Chuckbirds*, and esteem them delicious eating.

II. The COLLARED SNOW BUNTING *.

The head, throat, and neck, are white. It has two sorts of collars at the under part of the neck; the upper lead-colour, the lower blue; both separated by the ground colour, which forms a sort of white intermediate collar; the quills of the wings are white, spotted with a greenish yellow, and streaked with some black feathers; the eight quills of the middle of the tail, and the two outer ones, white; the two others black; all the rest of the plumage reddish brown, spotted with greenish yellow; the bill red, edged with cinereous; the iris white, and the legs flesh-coloured.—This bird was caught in the county of Essex; it could not be ensnared till after many and tedious trials.

Kramer observes that in the Ortolans, as well as in the yellow Buntings, the chaffinches, and bulfinches, the two mandibles are moveable, and this is the reason, he says, why they shell the seeds, and do not swallow them entire.

* This is the *Pied Chaffinch* of Albin and Latham, the fourth variety of Linnæus's *Snow Bunting*, the *Fringilla Capite Alb* of Klein, and the *Hortulanus Nivalis Torquatus* of Brisson.

THE RICE BUNTING*.

THESE birds are migratory birds, and the motive of their passage is not known. Numerous flocks of them are seen or rather heard in the month of September, coming from the island of Cuba, where the rice has already attained maturity, and directing their course to Carolina, where it is only coming into ear. These remain in Carolina only three weeks, and then advance towards the north, always in search of more tender grain; and, by successive stations, they penetrate as far as Canada, and perhaps beyond. But what is the most singular, though there are other similar instances, these

* CHARACTER SPECIFICUS.

EMBERIZA ORYZIVORA. E. fusca, cervice rufescente abdomine nigro, rectricibus mucronatis.—*Lath. Ind. Orn.* i. p. 408. No. 30.

EMBERIZA ORYZIVORA.—*Gmel. Syst.* i. p. 880.

HORTULANUS CAROLINENSIS.—*Bris.* iii. p. 282. 8. t. 16 f. 3.

L'AGRIPENNE, ou L'ORTOLAN DE RIZ.—*Buff. Pl. Enl.* 388. f. 1.—*Buff. par Sonn.* xlix. p. 47.

RICE BUNTING.—*Arct. Zool.* ii. No. 325 —*Cates. Car.* i. t. 14.—*Edw.* t. 291.—*Lath. Syn.* iii. p. 188. 25.

HABITAT

in America, Carolina, insula Cuba, et adjacentibus. W.

flocks are composed entirely of females. It is ascertained, we are told, from numerous dissections, that only the females pass in September; but in the beginning of the spring, the males and females are intermingled; and, indeed, this is the season of the union of the sexes.

The plumage of the females is rusty over almost its whole body; that of the males is more diversified: the fore part of the head and neck, the throat, the breast, and all the under part of the body, the upper part of the back and the thighs, black, with a mixture of rusty; the back of the head and neck rusty; the lower part of the back and rump of an olive cinereous; the great superior coverts of the wings of the same colour, edged with whitish; the small superior coverts of the wings, and the superior coverts of the tail, dirty white; the quills of the wing black, tipped with brown, and edged, the great ones with sulphur-colour, and the small ones with grey; the quills of the tail are nearly like the great quills of the wings, only all terminate in points*; lastly, the bill is cinereous, and the legs brown. This Ortolan is remarked to be taller than the rest.

Total length six inches and three-fourths; the bill six lines and a half; the alar extent four inches; the tail two inches and a half,

* For this reason we have called the bird *Agripennæ*.

somewhat forked, and exceeding the wings by ten lines *.

* It is remarkable that the Rice-birds were not known in Carolina before the end of last century, when that nutritious grain was introduced from Madagascar. We may suppose that a few stray birds had been driven into that province by adverse winds, and had fared so well among the rice-crops, as to have returned with their brood the ensuing season : and thus, in the course of a few years, a direction would be given to their general migrations. They arrive in Carolina about September; at first they are very lean, but soon grow excessively fat, and fly with difficulty, so that they are easily shot. Their stay lasts three weeks; and both sexes make a transient visit in the spring. A few remain through the winter in Carolina, and even in Virginia, where they subsist on the scattered grains of Indian corn.

VARIETIES of the RICE BUNTING.

THE LOUISIANA BUNTING *.

I CONSIDER this as a variety of the preceding, produced by the influence of climate: its size, its port, its shape, are the same, and the quills of the tail are likewise pointed, the only difference, in short, consisting of the colours of the plumage. The Louisiana Bunting has the throat and all the under part of the body of a light yellow, which is still more dilute on the lower belly; the upper part of the head and of the body, and the small superior coverts of the wings, are of an olive brown; the rump, and the superior coverts of the tail, yellow, finely striped with brown: the quills of the tail

* CHARACTER SPECIFICUS.

EMBERIZA ORYZIVORA. *E. fusco-olivacea, subtus flavescens, uropygio flavo fusco, transversim lineato; tectricibus alarum majoribus, remigibusque nigris, albo marginatis.*—*Lath. Ind. Orn.* i. p. 408. No. 30. Var. β .

L'AGRIPENNE, ou L'ORTOLAN de la LOUISIANE.—*Buff. Pl. Enl.* 388. f. 2.—*Buff. par Sonn.* xlix. p. 50.—*Lath. Syn.* iii. p. 189. 25. Var. A.

HABITAT

in Louisiana.

blackish, those of the middle edged with yellow, the lateral ones with white, the intermediate ones with the different shades that intervene between white and yellow; the great superior coverts of the wings are black, edged with white; the quills are the same, except the middle ones, which have more white.

The measures are nearly the same as in the Rice Bunting*.

* Mr. Pennant thinks that this bird is the female of the common Rice Bunting.

THE YELLOW BUNTING

The osseous tubercle or barley-corn on the palate of this bird proves indisputably its

* CHARACTER SPECIFICUS.

EMBERIZA CITRINELLA. E. rectricibus nigricantibus, extimis duabus latere interiore macula alba acuta.—*Lath. Ind. Orn.* i. p. 400. No. 7.

EMBERIZA CITRINELLA.—*Gmel. Syst.* i. p. 870.—*Raii Syn.* p. 93. A. 2.—*Will.* p. 196. t. 40.—*Id.* 198.—(*femina.*) *

EMBERIZA FLAVA.—*Bris.* iii. p. 258. 1.

LE BRUANT.—*Buff. Pl. Enl.* 30. f. 1.—*Buff. par Sonn.* xlix. p. 52.

YELLOW BUNTING.—*Br. Zool.* No. 119. t. 50.—*Will.* (*Angl.*) p. 268. t. 40.—*Arct. Zool.* ii. p. 367. C.—*Lath. Syn.* iii. p. 176.—*Id. Sup.* p. 157.—*Bew. Birds.* i. p. 47.

HABITAT

in Europa; in Anglia valde frequens; ad horrea et pagos, domestica.—6½ pollices longa. W.

† In Germany, it is called *Emmerling*, *Geel-ammer*, *Gerst-ammer*, *Gruen-zling*, *Guelgensicken*, *Gilbling*, *Gilberschen*, *Gilbertsch*, *Korn-Vogel*, *Geel-gorst*; which names allude in general to its yellow plumage, and its feeding upon corn, especially barley; in Switzerland, *Bommeritz*, *Emmeritz*, *Emmerling*, *Heimmerling*; in Italy, *Zigolo*, *Zigolo*, *Cin Megliar*, *Vetzero*, *Pactzero*, *Spaiarda*; in Brabant, *Jarine*; in Illyria, *Struad*; in Sweden, *Groening*; in Denmark, *Gulspury*, *Gulvesling*; in Smoland, *Golspinck*. In Latin, it was



THE YELLOW HAMMER.

affinity to the Ortolans: but it resembles them also by other properties; by the shape of its bill and tail, by its proportions, and by the delicacy of its flesh*. Salerne remarks, that its cry is nearly the same.

The Yellow Bunting makes several hatches, the last in September: it places its nest on the ground, below a clod, in a bush, or in a tuft of grass, but always carelessly. Sometimes it builds in the low branches of shrubs, and is then at more pains. The body of the nest consists of straws, moss, and dry leaves, and is lined with roots, the finest straws, hair, and wool. The eggs are generally four or five, spotted with brown of different shades, on a white ground; but the spots are thicker at the large end. The female covers with such ardent attachment, that often she can be caught by the hand in broad day. The young are fed with small seeds, insects, and even May-flies; but of these last, the hard crust sheathing the wings is previously separated by the parents. They are however granivorous, and fondest of millet and hemp-seed. They can be caught by a noose baited with a head of oats; but cannot be de-

termed *Galgulus*, or *Galbula*, and also *Icterus*, from the Greek *ἰκτερος*, signifying the jaundice, both on account of its yellow plumage, and a notion entertained by the people that the sight of it cured that disease.—PLIN. xxx. 11.

* Its flesh is yellow, and has been said to be a remedy for the jaundice: nay, a person afflicted by that disease might transfer it by looking at the bird.—SCHWENCKFELD.

coyed, it is said, by the call. In summer they haunt the trees, the sides of the hedges and bushes; sometimes they visit the vineyards, but scarcely ever penetrate into the heart of the forests. In winter, a part of them migrate into other climates, and those which remain behind assemble and join the chaffinches, sparrows, &c. forming very numerous flocks, especially in rainy weather. They resort to the farms, and even to the villages and high roads, picking up their subsistence among the bushes, and even in horse-dung, &c. and in that season they are almost as familiar as the sparrows*. They fly rapidly and alight suddenly, and for the most part in the midst of the thickest foliage, and never upon a separate branch. Their ordinary cry consists of seven notes, six of which are equal, and of the same tone, and the last sharper and prolonged, *tī, tī, tī, tī, tī, tī, tī††*.

* Frisch derives the German name *Anmer*, or *Hammer*, from *ham*, which signifies a house: *Anmer*, on this hypothesis, would denote *domestic*. [The old English name *Yellow Hammer* is evidently borrowed from the German.]

† According to some, they have another cry, *vignerot*, *vignerot*, *titchyc*. Olina says, that they partly imitate the warble of the chaffinches, with which they associate. Frisch relates that they adopt something of the song of the canary when they hear it young: he adds, that the cross breed of the cock Bunting and hen canary chants better than the father. Lastly, Guys says, that the song of the cock Bunting grows pleasant on the approach of the month of August. Aldrovandus also speaks of its fine warble.

‡ The Yellow Buntings pass in small flocks over the new-

The Yellow Buntings are spread over the whole of Europe, from Sweden to Italy, and through all the interjacent countries; and they are consequently exposed to great difference of temperature, which happens to most birds in any degree domestic.

The male is distinguished by the bright yellow feathers on the head and on the lower part of the body; but on the head this colour is variegated with brown; it is pure yellow on the sides of the head, under the throat, under the belly, and on the inferior coverts of the wings, and it is mixed with light chesnut on all the rest of the lower part; the neck and the small superior coverts of the wings are olive; the middle and large coverts of the wings, the back, and even the first four quills of the wings, are blackish; the rest are brown, and edged, the two outer with white, and the ten others with whitish-grey; lastly, their superior coverts are light chesnut, terminated with whitish-grey. The female has not so much yellow as the male, and is more spotted on the neck, the breast, and the belly: in both, the edges of the lower mandible are received into the upper whose edges are scalloped near the point; the tongue is divided at the tip into slender threads and lastly, the hind claw is the longest of all. The bird weighs five or six gros; the intestines

sown-fields of the Lower Vosges, and then the lark-catchers take a great number in their nets. W.

Note communicated by Girardin, to Sonnini.

tube is seven inches and a half long; vestiges of a *cæcum*; the *œsophagus* is two inches and a half long, dilating near the gizzard, which is muscular; the gall bladder very small. I found in the *ovarium* of the females which I dissected, eggs of unequal bulk.

Total length, six inches and one-third; the bill five lines; the legs eight or nine lines, the middle toe almost as long; the alar extent nine inches and one-fourth; the tail two inches and three-fourths, consisting of twelve quills, somewhat forked, not only because the intermediate quills are shorter than the lateral ones, but also because the six quills on each side turn naturally outwards; they extend twenty-one lines beyond the wings*.

* It is six inches and a half long; very frequent in England. It lays six eggs, which are whitish-purple, with blackish irregular spots and streaks.

VARIETIES of the YELLOW BUNTING.

THE colours vary, in different subjects and in different climates, both in their shades and distribution: sometimes the yellow extends over all the head, neck, &c. In some, the head is of a yellowish cinereous; in others the neck is cinereous, spotted with black; the belly, the thighs, and the legs, are saffron-colour; the tail brown, edged with yellow, &c.

THE CIRL BUNTING*.

THIS is seen sometimes perched, sometimes running on the ground, and particularly in newly-ploughed fields, where it finds seeds, small worms, and other insects; and accordingly it almost always has earth sticking to its bill. It is easily ensnared, and when caught with bird-lime, it generally remains attached, or if it entangles itself, it loses most of its feathers in the struggle, and is no longer able to fly. It soon becomes reconciled to captivity, but is

* CHARACTER SPECIFICUS.

EMBERIZA CIRLUS. E. supra varia, subtus lutea, pectore maculato, superciliis luteis, rectricibus duabus extimis macula alba cuneata.—*Lath. Ind. Orn.* i. p. 401. No. 10.

EMBERIZA CIRLUS.—*Gmel. Syst.* i. p. 879.—*Raii Syn.* p. 93. 4.—*Will.* p. 196.

EMBERIZA SEPIARIA.—*Bris.* iii. p. 263. 2.

LE BRUANT de HAYE †.—*Buff. Pl. Enl.* 653. f. 1. 2.—*Buff. par Sonn.* xlix. p. 62. pl. 120. f. 1.

CIRL BUNTING.—*Lath. Syn.* iii. p. 190. 26.

HABITAT

in Europa australi.—6½ pollices longa.

† i. e. The Hedge Bunting.

not absolutely insensible of its situation ; for, during the first two or three months, it has only its usual chirp, which it repeats with frequency and trepidation when a person goes near its cage : however, by gentle treatment, it at length resumes its warble. Its size and its habits are nearly the same with those of the yellow bunting, and probably, if we were better acquainted with these birds, we should perceive that they belonged to the same species.

The Girl Buntings are not found in the northern countries, and seem to be most frequent in those of the south ; however, they are rare in several provinces of France. They are often seen with the chaffinches, whose song they imitate, and with whom they form numerous flocks, especially in rainy days. They feed on the same substances as the other granivorous tribe, and live about six years according to Olina : but this must be understood of them in the domestic state ; for it is uncertain what effects fresh air and freedom of motion may have upon longevity.

In the male, the upper part of the head is spotted with blackish upon an olive-green ground ; there is a yellow spot on the sides, divided into two unequal parts by a black streak which passes over the eyes ; the throat is brown and also the top of the breast, and a yellow collar lies between them ; the rest of the under part of the body is yellow, which grows more dilute as it spreads to the tail, and is spotted

with brown on the flanks; the upper part of the neck and back is variegated with rufous and blackish; the rump olive-rufous, and the superior coverts are of a purer rufous; the quills of the wings brown, edged with olive, except the nearest to the back, which are rufous, and the two middle ones, which are rusty-grey; lastly, the bill is cinereous, and the legs brown.

In the female, there is less of the yellow, the throat is not brown, nor does any brown spot appear on the breast.

Aldrovandus tells us, that the plumage is subject to much diversity in this species: the one which he figured had a dull green tinge on its breast; and of those which I have observed, I found one of which the upper part of the neck was olive, with scarcely any admixture.

Total length six inches and one-fourth; the bill about six lines; the alar extent nine inches and three-fourths; the tail nearly three inches, composed of twelve quills, and projecting about ten lines beyond the wings, and forked as in the yellow bunting.

THE FOOLISH BUNTING

THE Italians have applied the epithet of *Foolish* to this bird, on account of its incautious disposition, being readily caught in every sort of snare: but the want of circumspection is characteristic of the genus, and the Foolish Bunting is inconsiderate only in a higher degree. The name of *Meadow Bunting* is improper; for the most observant bird-catchers and fowlers have unanimously assured me, that they never saw it in the meadows.

Like the ciril bunting, the Foolish Bunting

* CHARACTER SPECIFICUS.

EMBERIZA CIA. *E. rufescens*, capite lineis nigricantibus sparsis, superciliis albis.—*Lath. Ind. Orn.* i. p. 402. No. 11.

EMBERIZA CIA.—*Gmel. Syst.* i. p. 878.

———— PRATENSIS.—*Bris.* iii. p. 266. 3.

CIRLUS STULTUS.—*Raii Syn.* p. 94. 5.—*Will.* p. 198.

PASSERIBUS CONGENER ALDR.—*Raii Syn.* p. 87. 2. ?—*Will.* p. 182 ?

LE BRUANT FOU, ou DE PRES.—*Buff. Pl. Ent.* 30. f. 2.—*Buff. par Sonr.* xlix. p. 67, pl. 120, f. 2.

FOOLISH BUNTING.—*Lath. Syn.* iii. p. 191. 27.—*Will.* (Angl.) p. 250. iii.

HABITAT

in Europa australi et Sibiria; solitaria.

W.

is not found in the northern countries, nor does its name occur in the catalogues of the Swedish and Danish birds. It prefers solitude, and delights in mountainous abodes. It is very common and well known in the hills round Nantua. Hebert* often saw it on the ground, and upon the chesnut-trees; and the country people told him, that its flesh was excellent meat. Its song is very ordinary, and resembles that of the yellow bunting; and the Prussian bird-catchers have remarked, that when it is put into a volery among others of a different species, it discovers a strong predilection for the yellow bunting. Indeed its cry †, its size, its figure, are the same, and it differs only by some of its habits.

In the male, all the upper part is variegated with blackish, and grey; but this grey is purer on the head, and rusty every where else, except on some of the middle coverts of the wings, where it becomes almost white. The same rusty grey edges almost all the quills of the wings and of the tail, whose ground-colour is brown, only the two exterior quills of the tail are edged and tipped with white; the orbits are rusty white; the sides of the head and of the neck are grey; the throat is grey, dotted with blackish, and edged on each side and below by a line al-

* This excellent observer has communicated or confirmed the principal facts of the history of the buntings.

† Linnæus says that in flying it chirps *zip, zip*.

most black, which forms an irregular sort of square with the grey plate on the sides of the head; all the under part of the body is fulvous, more or less dilute, but dotted or variegated with blackish on the throat, the breast, and the flanks; the bill and legs are grey.

Total length six inches and one-fourth; the bill five or six lines; the alar extent nine or ten inches; the tail two inches and one-third, a little forked, consisting of twelve quills, and exceeding the wings by sixteen lines.



THE BUNTING.

THE COMMON BUNTING *

THIS is a bird of passage, and arrives early in the spring. It deserves to be called *Meadow Bunting*, since in the summer season it never strays far from the low grounds †. It makes

* CHARACTER SPECIFICUS.

EMBERIZA MILIARIA. E. grisea, subtus nigro-maculata, orbitis rufis.—*Lath. Ind. Orn.* i. p. 402. No. 12.

EMBERIZA MILIARIA.—*Gmel. Syst.* i. p. 868.

———— ALBA.—*Raii Syn.* p. 93. A. 1.—*Will.* p. 195. † 40.

CYNCHRAMUS.—*Bris.* iii. p. 292. 10.

LE PROYER.—*Buff. Pl. Enl.* 233.—*Buff. par Sonn.* xlix. p. 73. pl. 121. f. 1.

BUNTING.—*Br. Zool.* No. 118.—*Arct. Zool.* ii. p. 366. B.—

—*Will. (Angl.)* p. 267. t. 40.—*Lath. Syn.* iii. p. 171.—

—*Bew. Birds*, i. p. 145.

HABITAT

in Europa, præcedente major; in Angliâ frequens. W.

† In German, *Knuet, Knipper, Gerst-Ammer* (Barley Bunting), *Graue-Ammer* (Grey Bunting); in Swedish, *Kornlaerka* (Corn Lark); in Norwegian, *Knøtter*. The Italian name *Strillozzo* comes from *Strillare*, to creek, on account of its cry. In Greek it was called *Κυλχραμος*, or *Κυχρανος*, according to Belon.

‡ Belon says that it follows the water like the woodcock.

its nest among the fields, of barley, of oats, of millet, &c. seldom on the surface of the ground, but three or four inches above, among the thick strong herbage*. The female lays four, five, and sometimes six eggs; and while she is engaged in hatching, the male brings her food, and sitting on the summit of a tree, he repeats incessantly the disagreeable cry, *tri, tri, tri, tiritz*, which he retains only till the month of August: the notes are sharper and shorter than those of the yellow bunting.

It has been observed, that when the Bunting rose from the ground towards a branch, its legs dropped, and its wings quivered with an irregular motion peculiar to the season of love. At other times, in autumn for instance, it flies equably and swiftly, and mounts to a considerable height.

The young ones leave the nest long before they are able to fly, and take delight to run among the grass; and this would seem to be the reason why the parents build so close to the ground. The pointer-dogs often surprise them in the chase of quails. The parents still continue to feed and guard them till they are fledged; but their anxiety for the safety of their brood often betrays them, and if a person chances to go near the spot, they circle his head with a doleful air.

After the family is raised, they pour their

* Belon.

numerous flocks into the fields, especially among the crops of oats, beans, and the late sorts of grain. They migrate soon after the swallows, and it very seldom happens that any of them remain during the winter*.

It is observed that the Bunting does not flutter from branch to branch, but alights on the extremity of the highest and most detached bough either of a tree or shrub, and in a moment begins its song, which it prolongs for whole hours in the same place, repeating its tiresome note, *tri, tri*; and lastly, that in taking flight, it chatters with its bill†.

The female sings also, after the young no longer occupy her attention; but this is only when perched on a branch, and about mid-day. Her song is as bad as that of the male. She is rather smaller, but her plumage is nearly the same. Both feed upon grain and small insects, which they find in the fields and meadows.

These birds are spread over all Europe, or rather they visit the whole extent of it in their migrations. Olinia affirms that they are more numerous at Rome and in its vicinity than in other countries. Bird-catchers keep them in a cage to use as calls in autumn; and they not only entice the foolish buntings into the snare, but many other small birds of different kinds. They are for this purpose put in low cages without any bars or roosts.

* Gesner.

† Most of these facts were communicated by M. Hebert.

In the male, the upper part of the head and body is variegated with brown and rufous; the throat and the orbits light rufous; the breast, and all the rest of the under part of the body, yellowish-white, spotted with brown on the breast and sides; the superior coverts of the wings, their quills, and those of the tail, are brown, edged with rufous, more or less dilute; the bill and legs brown-grey.

In the female, the rump is grey, verging upon rufous, without any spots; the superior coverts of the tail the same colour, edged with whitish; and in general the quills of the tail, and of the wings, are bordered with lighter colours.

The bill of these birds is of a remarkable shape; the two mandibles are moveable, as in the ortolans; the edges are also re-entering, as in the Common Bunting, and the junction is made in a crooked line; the edge of the lower mandible on each side, near the third of its length, makes an obtuse salient angle, and is received by the corresponding *re-entrant* angle in the upper mandible, which is more solid and bulky than in most other birds; the tongue is narrow, thick, and tapered to a point, like a tooth-pick; the nostrils are covered above by a membrane of a crescent shape, and below by small feathers; the first *phalanx* of the outer toe is joined to that of the middle toe.

Intestinal tube thirteen inches and a half; the gizzard muscular, preceded by a moderate dila-

tion of the *oesophagus*, containing vegetable matter, and nuts, with small pebbles; slight vestiges of a *cæcum*; no gall-bladder; the great axis of the testicles four lines, the smaller one three lines. Total length of the bird seven inches and a half; the bill seven lines; the alar extent eleven inches and one third; the tail nearly three inches, somewhat forked, consisting of twelve quills, and stretching eighteen lines beyond the wings.

FOREIGN BIRDS,

WHICH ARE RELATED TO THE BUNTINGS.

I.

THE BRAZILIAN BUNTING

HAD not this bird been a native of South America, and its cry been different from that of the yellow bunting †, I should have considered

* CHARACTER SPECIFICUS.

EMBERIZA BRASILIENSIS. E. virescens flavo fuscoque varia, subtus verticeque lutea.—*Lath. Ind. Orn.* i. p. 412. No. 43.

EMBERIZA BRASILIENSIS.—*Bris.* iii. p. 299. 13.—*Gmel. Syst.* i. p. 872.

LE GUIRNEGAT.—*Buff. par Sonn.* xlix. p. 82.

LE BRUANT du BRESIL.—*Pl. Enl.* 321. f. 1.

G. IRANHEEMGATU.—*Raii Syn.* p. 89. 2.—*Will.* p. 186.—*Id. (Angl.)* p. 253.

BRASILIAN BUNTING.—*Lath. Syn.* iii. p. 197. 38.

HABITAT

in Brasilia.

W.

† Our Bunting is called *Luteola*, *Aurcola*, *Gold-hammer*, *Bruant Jaune*, *Bruant Doré*, *Cia Pagliarina*: so that yellow would seem to form part of its essence.

it as a mere variety.¹ Indeed its plumage has even more of the yellow than is common in ours*, and I have no doubt but they would intermix, and beget prolific offspring.

The yellow is spread unmixed on the head, the neck, and all the under part of the body, and also borders almost all the superior coverts, and the quills of the tail and of the wings, which are brown; on the back it is intermingled with brown and green; the bill and the eyes are black, and the legs brown.

This bird is found in Brazil, and probably is indigenous, for the natives have given it a name, *Guiranheemgata*. Marcgrave praises its song, and compares it to that of the chaffinch.

The female is very different from the male; for the same author tells us, that the plumage and cry resemble those of the sparrow.

* Some individuals of our Bunting have the head, the neck, and the upper side of the body, almost entirely yellow; but this is rare.

II.

THE MEXICAN BUNTING

As I have seen only the figure, and a dead specimen of this bird, I can give but an imperfect description. Its plumage is much like that of the common yellow bunting; almost all the head, the throat, and the sides of the neck, are orange-yellow; the breast, and the under part of the body, speckled with brown on a dirty white ground; the back of the head, and neck, and all the upper part of the body, brown: this last colour tapers to a point on each side of the neck, and extends almost to the eye. The quills of the wings and tail, and their coverts, are brown, edged with a lighter brown.

* CHARACTER SPECIFICUS.

EMBERIZA MEXICANA. *E. fuscescens*, facie gulaque luteis, corpore subtus sordide albo fusco maculato.—*Lath. Ind. Orn.* i. p. 412. No. 44.

EMBERIZA MEXICANA.—*Gmel. Syst.* i. p. 873.

LA THERESE JAUNE.—*Buff. par Sonn.* xlix. p. 85.

LE BRUANT du MEXIQUE.—*Pl. Enl.* 386. f. 1.

MEXICAN BUNTING.—*Lath. Syn.* iii. p. 198. 39.

HABITAT

in Mexico.—6½ pollices longa.

W.

III.

THE YELLOW-FACED BUNTING*.

The forehead and throat are yellow, and all the rest of the plumage grey. It is nearly of the size of the siskin. Linnæus, who has made us acquainted with this species, informs us, that it is a native of the warm countries, but does not mention to what continent it belongs.

* CHARACTER SPECIFICUS.

EMBERIZA FLAVEOLA. *E. grisea, fascia flava.*—*Lath. Ind. Orn. i. p. 410. No. 36.*

EMBERIZA FLAVEOLA.—*Linn. Syst. i. p. 311. 14.*—*Gmel. Syst. i. p. 880.*

LA FLAVEOLE.—*Buff. par Sonn. xlii. p. 87.*

YELLOW-FACED BUNTING.—*Lath. Syn. iii. p. 195. 32.*

HABITAT

in calidis regionibus.

W.

IV.

THE OLIVE BUNTING*.

This little Bunting, which is found in Dominica, exceeds not the size of a wren. All the upper part, and even the tail, and the quills of the wings, are of an olive-green; the throat orange-yellow; there is a spot of the same colour between the bill and the eye; the fore part of the neck is blackish; all the under part of the body a very light grey, tinged with olive; the anterior part of the wings edged with light yellow; the bill and legs brown.

The female has not the black neck-piece, nor the orange-yellow spot between the bill and the eye; nor is the throat orange-yellow, as in the male.

* CHARACTER SPECIFICUS.

EMBERIZA OLIVACEA. *E. olivacea*, subtus albidior, gula aurantia, fascia pectorali nigricante.—*Lath. Ind. Orn.* i. p. 410. No. 38.

EMBERIZA OLIVACEA.—*Gmel. Syst.* i. p. 870.

———— DOMINICENSIS.—*Bris.* iii. p. 300. 14. t. 13. f. 5. (mas.)

L'OLIVE.—*Buff. par Sonn.* xlix. p. 88.

OLIVE BUNTING.—*Lath. Syn.* iii. p. 195. 34.

HABITAT

in Dominica.

W.

Total length three inches and three-fourths ; the bill four lines and a half ; the alar extent six inches ; the tail eighteen lines, consisting of twelve quills, and projecting seven or eight lines beyond the wings

* Vieillot observes, that the Olive Bunting frequents the sugar plantations, and the colonists, on that account, call it the *Cane Bird*. It feeds on seeds and different insects, and constructs an artful nest of dried grass, in the shape of a melon. The entrance is in the middle, and always directed from the wind and rain. The eggs are the size of those of the linnet ; they are white, with red dots in the middle and at the ends. W.

V.

THE AMAZON BUNTING †.

This bird was found at Surinam. It is of the bulk of our titmouse ; the upper part of the head is fulvous ; the inferior coverts of the wings whitish ; the rest of the plumage brown.

† CHARACTER SPECIFICUS.

EMBERIZA AMAZONA. E. fusca, vertice fulvo, crisso al-bido.—*Lath. Ind. Orn.* i. p. 410. No. 37.

EMBERIZA AMAZONA.—*Gmel. Syst.* i. p. 880.

L'AMAZONE.—*Buff. par Sonn.* xlix. p. 95.

AMAZON'S BUNTING.—*Lath. Syn.* iii. p. 195. 33.

HABITAT

in Surinam,

W.

VI.

THE PLATA BUNTING*.

This bird was brought from Buenos Ayres. We describe it on the authority of Commerson, who speaks only of its plumage and external characters, and takes no notice of its manner of living, nor informs us whether it has the discriminating properties of the species.

All the upper part of the body is of a brown-green, verging to yellow; the head, and the upper part of the tail, of a darker tinge; the under part of the tail has more of a yellow cast; the back marked with some black streaks; the anterior edge of the wings bright yellow; the

* CHARACTER SPECIFICUS.

EMBERIZA PLATENSIS. E. fusco-virescens, subtus cinereo-alba, dorso nigro maculato, oris alarum extus remigibus rectricibusque flavo marginatis.—*Lath. Ind. Orn.* i. p. 417.

No. 66.

EMBERIZA PLATENSIS.—*Gmel. Syst.* i. p. 886.

L'EMBERISE à CINQ COULEURS.—*Buff. par Sonn.* xlix. p. 94.

PLATA BUNTING.—*Lath. Syn.* iii. p. 210. 58.

HABITAT

in Bonariis, ad fluvium Plata Americæ australis.—8 pollices longa. W.

quills of the wings, and the outermost of those of the tail, edged with yellowish; the under part of the body cinereous-white; the pupil blackish blue; the iris chestnut; the bill cinereous, convex, and pointed; the edges of the lower mandible *re-entrant*; the nostrils covered with a membrane very near the base of the bill; the tongue terminating in small filaments; the legs lead-coloured.

Total length eight inches; the bill eight lines; the alar extent ten inches; the tail four inches; the hind nail largest of all.

VII.

THE BOURBON BUNTING*.

The whole of the body is reddish-grey, both above and below, and almost of the same shade;

* CHARACTER SPECIFICUS.

EMBERIZA BORBONICA. E. rufo-rubra, alis caudaque fusco-rubris.—*Lath. Ind. Orn.* i. p. 418. No. 67.

EMBERIZA BORBONICA.—*Gmel. Syst.* i. p. 886.

LE MORDORE.—*Buff. par Sonn.* xlix. p. 96.

LE BRUANT de l'ISLE DE BOURBON.—*Pl. Enl.* 321. f. 2.

BOURBON BUNTING.—*Lath. Syn.* iii. p. 210. 59.

HABITAT

in Borbonica insula.—5½ pollices longa.

the coverts of the wings, their quills, and those of the tail, are brown, edged with reddish-grey, more or less dilute; the bill brown, and the legs yellowish, tinged slightly with reddish-grey. It is found in the Isle of Bourbon, is nearly of the bulk of the yellow-hammer, but its tail is shorter, and its wings longer; the former projecting about ten lines beyond the latter.

VIII.

THE GREY BUNTING*.

Seba tells us that this bird is very common at Surinam, that it is of the size of the lark, and that it sings like the nightingale, and consequently much better than any of the buntings; which is extraordinary in an American bird. The people of the country say, that it is extremely fond of maize, and often perches upon the top of the stalk.

* CHARACTER SPECIFICUS.

EMBERIZA GRISEA. *E. grisea, tectricibus alarum pectoreque rubro variegatis.*—*Lath. Ind. Orn.* i. p. 418. No. 70.

EMBERIZA GRISEA.—*Gmel. Syst.* i. p. 887.

— SURINAMENSIS.—*Bris.* iii. p. 302. 15.

LE GONAMBOUCH.—*Buff. par Sonn.* xlix. p. 98.

GREY BUNTING.—*Lath. Syn.* iii. p. 211. 62.

HABITAT

in Suriname; magnitudine Alaudæ.—5 pollices longa. W.

Its principal colour is light-grey, but there is a tinge of red on the breast, the tail, the coverts, and the quills of the wings; the quills of the wings are white below.

Total length five inches; the bill five lines; the tail eighteen lines, and exceeding the wings by ten lines.

IX.

THE FAMILIAR BUNTING*.

The head and bill are black; the upper part of the body cinereous and spotted with white; the under part cinereous, but without spots; the rump and part of the back that is covered by the wings, yellow; the coverts and the end of the tail, white.—This bird is found in Asia, and is nearly the size of the siskin †.

* CHARACTER SPECIFICUS.

EMBERIZA FAMILIARIS. *E. cinerea griseo-maculata, apicibus rectricum albis, dorso postico flavo.*—*Lath. Ind. Orn.* i. p. 410. No. 35.

EMBERIZA FAMILIARIS.—*Gmel. Syst.* i. p. 879.

MOTACILLA FAMILIARIS.—*Osb. It.* 102.—*Id. Voy.* i. p. 157.

LE BRUANT FAMILIER.—*Buff. par Sonn.* xlix. p. 100.

FAMILIAR BUNTING.—*Lath. Syn.* iii. p. 194. 31.

HABITAT

in Java.

W.

† This bird is found in the island of Java: it is easily tamed, and becomes familiar.

W.

X.

THE CINEREOUS BUNTING*.

We are indebted to Brisson for this species:— the upper part of the head variegated with brown and chesnut; the under part of the neck, the back, and the coverts of the wings, variegated in the same manner with a mixture of grey; the rump grey without spots; the superior and inferior coverts of the tail, dirty white and rusty; the throat and all the under part of the body, dirty white, variegated with chesnut spots, less frequent however below the belly; the quills of the tail and of the wings brown, edged with

* CHARACTER SPECIFICUS.

EMBERIZA CINEREA. *E. grisescens fusco castaneoque varia, subtus albida castaneo maculata, tectricibus caudæ rufo-albis, remigibus rectricibusque fuscis.*—*Lath. Ind. Orn.* i. p. 415. No. 58.

EMBERIZA CINEREA.—*Gmel. Syst.* i. p. 876.

———— CANADENSIS.—*Bris.* iii. p. 296. 14. t. 14. f. 1.

LE CUL-ROUSSET.—*Buff. par Sonn.* xlix. p. 101.

CINEREOUS BUNTING.—*Arct. Zool.* ii. No. 238.—*Lath. Syn.* iii. p. 204, 51.—*Id. Sup.* p. 159.

HABITAT

in America juniperitis.—Migratoria.

W.

grey, verging upon chesnut; the bill and legs brown-grey.—It was brought from Canada.

Total length five inches and a half; the bill five lines and a half; the alar extent eight inches and one-fourth; the tail two inches and a half, consisting of twelve quills, and projecting about twenty-one lines beyond the wings*.

* This is a bird of passage, and migrates in March, from Canada, into the province of New-York. W.

XI.

THE BLUE BUNTING*.

We are also indebted to Brisson for this Canadian bird: the upper part of the head is dull rufous; the upper part of the neck and of the body variegated with the same and with

* CHARACTER SPECIFICUS.

EMBERIZA CÆRULEA. *E. cœrulea rufo varia, subtus dilutior, vertice rufo, tectricibus alarum majoribus remigibus caudaque fuscis.*—*Lath. Ind. Orn.* i. p. 415. No. 59.

EMBERIZA CÆRULEA.—*Gmel. Syst.* i. p. 876.

———— CANADENSIS CÆRULEA.—*Bris.* iii. p. 298. 12. t. 14. f. 2.

L'AZUROUX.—*Buff. par Sonn.* xlix. p. 103.

BLUE BUNTING.—*Arct. Zool.* ii. No. 234.—*Lath. Syn.* iii. p. 205. 52.

HABITAT

in Canada.—4½ pollices longa.

W.

blue; the rufous is not so deep on the small coverts of the wings nor on the large ones, which are edged and tipped with that colour; the quills of the wings and of the tail are brown, edged with blue-grey; the bill and legs are brown-grey.

Total length four inches and one-fourth; the bill five lines; the alar extent seven inches, and one-third; the tail an inch, consisting of twelve quills, and not exceeding the wings by more than four lines.

XII.

THE BONJOUR COMMANDER*.

This is the name which the settlers in Cayenne give to a kind of bunting, which frequents the dwellings and sings at day-break. Some call it

* CHARACTER SPECIFICUS.

EMBERIZA CAPENSIS. E. supra varia, subtus alba, vertice griseo nigroque vario, striga pone oculos maxillarique nigra, pectore cinerascens.—*Lath. Ind. Orn.* i. p. 408. No. 28. Var. δ .

LE BONJOUR COMMANDEUR.—*Buff. par Sonn.* xlix. p. 105.

LE BRUANT du CAP DE B. ESPERANCE.—*Pl. Enl.* 380. 2.
—*Lath. Syn.* iii. p. 187. 23. C.

HABITAT

ad Caput B. Spei, Cayana.

W.

the Cayenne Bunting. It resembles the one from the Cape of Good Hope so exactly, that Sonnini thinks it is the same. One of the appellations ought therefore to be rejected; and this shows that all epithets of birds that are geographical are insufficient to discriminate them.

The cry is shriller than that of our sparrows; they are generally on the ground, and, like the buntings, they are for the most part in pairs.

The male has a black hood crossed by a grey bar; the checks are cinereous; there is a black ray extending from the base of the bill to the hood, and below and behind it there is a rufous half-collar; the upper part of the body is greenish-brown, variegated on the back with oblong black spots; the coverts of the wings are edged with rusty; all the under part of the body is cinereous.

It is a little smaller than the girl bunting, its total length being only five inches; its wings are short, and scarcely reach to the middle of the tail.

XIII.

THE RED-EYED BUNTING*.

Commerson described this bird on the Isle of France, which it inhabits, and where it is called *Calfat*. The upper part of the head is black, and all the upper part of the body, including the wings and the tail, are blueish cinereous; the tail edged with black; the throat black; the breast and belly wine-coloured; a white bar stretches from the corner of the opening of the bill to the back of the head; the orbit of the eyes is naked, and rose-coloured; the iris, the bill, and the legs, also rose-coloured; the inferior coverts of the tail white.

It is of a middle size, between the sparrow and the linnet.

* CHARACTER SPECIFICUS.

EMBERIZA CALFAT. *E. cinerascens, capite gulaque nigris, pectore abdomineque vinaceis, regione oculorum nuda rosea, lateribus capitis fascia alba.*—*Lath. Ind. Orn. i.* p. 418. No. 68.

EMBERIZA CALFAT.—*Gmel. Syst. i.* p. 887.

LE CÂLFAT.—*Buff. par Sonn. xlix.* p. 108.

RED-EYED BUNTING.—*Lath. Syn. iii.* p. 210. 60.

HABITAT

in insula Franciæ.

W.



THE BULFINCH. .

THE BULFINCH

NATURE has been liberal to this bird, for she has bestowed upon it a beautiful plumage and a fine voice. The colours are perfect after the first moulting, but the song needs to be assisted

CHARACTER SPECIFICUS.

LOXIA PYRRHULA. *L. cinerea, artubus nigris tectricibus caudæ remigumque posticarum albis.*—*Lath. Ind. Orn.* i. p. 387. No. 56.

LOXIA PYRRHULA.—*Gmel. Syst.* i. p. 846.—*Raii Syn.* p. 86. A.—*Will.* p. 130. t. 43.—*Bris.* iii. p. 308. 1.

LE BOUVREUIL.—*Buff. Pl. Enl.* 145.—*Buff. par Sonn.* xlix. p. 156. pl. 121. f. 2.

BULFINCH.—*Br. Zool.* i. No. 116.—*Ard. Zool.* ii. p. 353. A.—*Will. (Angl.)* p. 247. t. 17.—*Lath. Syn.* iii. p. 145. 51.—*Id. Sup.* p. 152.—*Bew. Birds,* i. p. 201.

HABITAT

in Europa passim.—Vix pollices 6 longa.

W.

† In German, *Blut-finch*, *Guegger*, *Brom-meiss*, *Bollenbeisser*, *Rot-vogel*, *Thumbherz*, *Gumpel*; in Swedish, *Dom-herre*; in Danish and Norwegian, *Dom-pape*, *Blod-finke*; in Polish, *Popok*; in Prussian, *Daun Psaffe*; in Italian, *Ci-faletta*, *Suffuleno*, *Fringuella Montano*, *Fringuella Vernina*, *Monachino*. In Greek, it was called *Συκαλίσκος*, from *Συκος*, a fig, on which it was supposed to feed; and also, *Πυρρῦλας*, from *πῦρ*, fire, on account of its red plumage.

and formed by art. In the state of freedom, the Bulfinch has three cries, which are all unpleasant; the first, which is the most common, is a sort of whoop; it begins with one, then two in succession, and afterwards three and four, &c. and, when animated, it seems to articulate with force the repeated syllable *tui, tui, tui*; the second is an air of greater extent, but lower, almost hoarse, and running into a discord*; and the third is a feebled stifled cry, which it vents at intervals, exceedingly shrill and broken, but at the same time so soft and delicate, that it scarcely can be heard; it emits this sound much in the same way as a ventriloquist, without any apparent motion of the bill or throat, only with a sensible action of the abdominal muscles.—Such is the song of the Bulfinch when left to the education of its parents; but if man deigns to instruct it methodically†, and accustom it to finer, mellower, and more lengthened strains, it will listen with

* This is its warble, *sī, ūt, ūt, ūt, ūt, sī, rē, ūt, ūt, ūt, ūt, ūt, ūt, sī, rē, ūt*. With the same voice it also pronounced *ut, ju, ut, mi, ut, la*. Sometimes these passages were preceded by a drawling tone, in the same style, but without any inflexion, and which resembled a sort of mewling. [The notes of the French gamut are Sol, La, Si, Ut, Re, Mi, Fa, corresponding to the English C, D, E, F, G, A, B.]

† It is said, that to succeed in teaching the Bulfinches one should whistle to them, not with the canary-flageolet, but with the lipped or german flute, whose tone is deeper and fuller. The Bulfinch can also mimic the warble of other birds.

attention, and the docile bird, whether male or female*, without relinquishing its native airs, will imitate exactly, and sometimes surpass its master†. It also learns easily to articulate words and phrases, and utters them with so tender an accent, that we might almost suppose it felt their force.—The Bulfinch is besides susceptible of personal attachment, which is often strong and durable. Some have been known, after escaping from the volery and living a whole year in the woods, to recognise the voice of the mistress, and return, to forsake her no more‡. Others have died of melancholy, on being removed from the first object of their at-

* The hen Bulfinch is the only female; it is said, of the singing-birds that learns to whistle as well as the male.—*Ædonologie*, p. 18.—Olinæ.—Aldrovandus, &c. Some pretend that her voice is weaker and sweeter than that of the cock Bulfinch.

† “I know a curious person (says the author of the *Ædonologie*, p. 89.), who, having whistled some airs quite plain to a Bulfinch, was agreeably surprised to see the bird add such graceful turns, that the master could hardly recognise his own music, and acknowledged that the scholar excelled him.” However, it must be confessed, that if the Bulfinch be ill-directed, it acquires harsh strains.* Hebert saw one which never had heard any person whistle but carters, and which whistled like them, with the same strength and coarseness.

‡ One of these birds which returned to its mistress, after living a year in the woods, had all its feathers ruffled and tangled. Liberty has its inconveniences, especially for an animal depraved by domestication.

tachment*. These birds well remember injuries received: a Bulfinch, which had been thrown to the ground in its cage by some of the rabble, though it did not appear much affected at the time, fell into convulsions ever after at the sight of any mean-looking fellow, and expired in one of these fits eight months from the date of its first accident.

The Bulfinches spend the summer in the woods or on the mountains: they make their nest in the bushes five or six feet from the ground, and sometimes lower: this consists of moss, lined with soft materials; and its opening is said to be the least exposed to the prevailing wind. The female lays from four to six eggs of a dirty white and a little blueish, encircled near the large end with a zone, formed by spots of two colours, some of an ill-defined violet, others of a distinct black. She disgorges the food for the young like the goldfinches, the linnets, &c. The male is attentive to his mate, and Linnæus relates that he sometimes holds out to her a spider in his bill a very long time. The young ones begin not to whistle till they are able to eat without assistance; and then they seem instinctively benevolent, if what is related be true, that in a hatch of four, the three elder will feed their pany brother. After the breeding is over, the parents still continue associated through the winter, for they are always seen in

* *Ædonologie*, p. 128.

pairs: those which remain in the country leave the forests, and descend from the mountains* when the snow falls, and forsake the vineyards which they haunt in the autumn, and approach our dwellings, or lodge among the hedges by the road sides: those which migrate, depart with the woodcocks, about All Saints day, and return in the month of April†. They feed in summer upon all sorts of seeds, insects, and sorbs†; and in the winter upon juniper-berries, upon the buds of aspen, of alder, of oak, of fruit-trees, of the marsh-willow, &c. § whence the name *Ebourgeonneux* (from *Bourgeon*), which they sometimes have in France; in that forbidding season, they are heard to whistle; and their song, though somewhat sad, cheers the torpid gloom of nature ||.

* There are many Bulfinches in the mountains of Bologna, of Modena, of Savoy, of Dauphiné, of Provence, &c.—
OLINA.

† Many are seen about the end of autumn and the beginning of winter in the mountainous parts of Silesia, but not every year, according to Schwenckfeld.

‡ Linnaeus.

§ Razoumowsky observes, that during the mild weather of the winter in 1788, all the goldfinches brought to him were females; but as soon as the frost began, i. e. about the middle of January, he saw none but males. W.

|| In the cage they eat hemp-seed, biscuit, prunes, salad, &c. Olina recommends for the young ones the nightingale's paste made with walnuts, &c.

Some reckon these birds attentive and thoughtful; and their heavy air and the facility with which they are instructed seem to favour that idea; but, on the other hand, their allowing one to get near them, and their being decoyed into the different snares*, indicate want of circumspection. As their skin is very tender, those which are caught with birdlime lose, in struggling to escape, part of their down, and even of their quills, unless a person speedily disentangles them. It deserves to be remarked, that those which have the finest plumage are the least capable of instruction, being older and not so tractable: but even the old ones are soon reconciled to the cage, provided that at first they have plenty of food; they can also be properly tamed, as I have already noticed, though to succeed requires time and patient attention, which is the reason that persons sometimes fail in the attempt. It seldom happens that one is caught alone; the other is soon enticed to follow its companion, and sacrifices its freedom to the call of friendship.

• It has been asserted that the canary, which breeds with so many other species, will never submit to the embrace of the Bulfinch, and it is alleged as the reason, that the cock Bulfinch,

* Gesner caught many of them, during the winter, by a bait of night-shade berries.

hen in heat, holds his bill open, which frightens the canary. But the Marquis de Pioleno assures me, that he saw a Bulfinch pair with a hen canary, which had fix young ones about the beginning of April: their bill was larger than that of canaries of the same age, and they began to be covered with a blackish down, which seemed to show that they had more of the father than the mother: unfortunately they all died in performing a short journey. What adds more weight to this observation, Frisch gives directions for the experiment: he advises the cock Bulfinch to be the smallest of its kind, and be kept long in the same volery with the hen canary; he subjoins, that sometimes a whole year elapses before the female will allow the Bulfinch to come near, or to eat out of the same tray; which shows that the union is difficult, but not impossible.

It has been observed that the Bulfinches jerk their tails briskly upwards and downwards, though not in so remarkable a degree as the wagtails. They live five or six years; their flesh is palatable according to some, and not fit to be eaten according to others, by reason of its bitterness; this must depend upon the age, season, and food. They are of the size of the house sparrow, and weigh about one ounce. The upper part of the head, the ring round the bill, and the origin of the neck, are fine glossy black, which extends more or less forwards and

backwards*; the forepart of the neck, the breast, and the top of the belly, beautiful red; the abdomen, and the inferior coverts of the tail and wings, white; the upper part of the neck, the back, and the shoulders, cinereous; the rump white, the superior coverts and the quills of the tail, fine black, verging to violet, a whitish spot on the outermost quills; the quills of the wings blackish cinereous, and, deeper the nearer to the body: the last of all red on the outside; the great coverts of the wings of a fine changing black, terminated with reddish light grey; the middle ones cinereous; the small ones blackish ash-colour, edged with reddish; the iris hazel; the bill blackish, and the legs brown.

The sides of the head and the forepart of the neck, the breast, the top of the belly, and, in a word, almost all that was red in the male, is vinous ash-colour in the female, and sometimes even the abdomen; nor has it the fine glossy changing black that occurs on the head and other parts of the male. I have seen a female, however, which had the last of the wing-quills edged with red, and which had no white on the outermost of those of the tail. Linnæus adds, that the tip of the tongue is divided into small filaments; but I have always found it

Hence the name of Monk, or Pope, which this bird has in many languages, and that of *Coally-hood*, given to it by the people in Scotland.

quite entire in the male, and shaped like a very short tooth-pick.

In many young Bullfinches which I have observed about the end of June, the forehead was light rufous, the fore-part of the neck and breast rusty-brown; the belly and the inferior coverts of the tail fulvous, which extends and grows more diffuse on the side; the under-part of the body, more or less dusky; the white ray over the wing deeply tinged with rusty; the rump white of different shades.—But it is obvious that considerable diversities will occur.

Total length six inches; the bill five lines, thick and forked; Kramer remarks, that the two mandibles are moveable, as in the finches and buntings; the alar extent nine inches and one-fourth; the tail two inches and one-third, somewhat forked (but not always in the females), consisting of twelve quills; the outer-toe joined by its first *phalanx* to the mid-toe; the hind-nail stronger and more hooked than the rest.

The dimensions of the female when dissected were as follow:—intestinal-tube eighteen inches; vestiges of a *cæcum*; the *œsophagus* two inches and a half, dilated like a bag, with a projecting edge next the gizzard, which is muscular, containing many small pebbles, and even two or three small yellow seeds quite entire, though the birds had remained two days

and a half in the cage without eating; the cluster of the *ovarium* of an ordinary size, and the small eggs nearly equal; the ovi-duct spread, and above three inches in length; the *trachea* formed a sort of knot of a considerable thickness, where it forked *.

* In England the Bulfinch breeds in the end of May or beginning of June: it is very destructive to our fruit-trees. W. •

VARIETIES of the BULFINCH.

SIR Robert Sibbald has only a single line on the Bulfinch, and says, that there are several kinds of it in Scotland: these are probably only the varieties which we shall now describe.

Frisch tells that the Bulfinches may be divided into three different sizes: the Marquis de Piolenc was acquainted with two distinguished by their bulk*: and others pretend that those of Nivernois are smaller than those of Picardy. Lottinger assures us, that the Bulfinch of the mountains exceeds that of the plain; and this accounts for the diversity of bulk, being variously modified by local situation: But these are too numerous to be separately treated: and I shall here take notice only of the varieties of plumage.

I. The WHITE BULFINCH†. Schwenckfeld speaks of a white Bulfinch that was caught near the village of Frischbach in Silesia, and which had only some black feathers on the

* The smallest, adds M. de Piolenc, is of the size of the chaffinch, its body is longer, its breast of a brighter red; and it seems wilder than the ordinary Bulfinch.

† *Loxia-Pyrhula*—var. 2. *Linn.*

back. This fact is confirmed by Delisle: "There are in this canton (of Beresow in Siberia), says that excellent astronomer, White Bulfinches, whose back is somewhat blackish, and grey in summer: these birds have a delicate pleasant song, much superior to that of European Bulfinches." It is probable that the northern climate has much contributed to this change of plumage.

II. The BLACK BULFINCH*. Under this denomination, I include not only those which are entirely or almost black, but also those which have perceptibly begun to assume that complexion:—such was what I saw at Baron Goula's, its throat and rump were black; the inferior coverts of its tail, its lower belly, and the top of its breast, variegated with rufous wine-colour and black, and no white spots appeared upon the last quill of the tail. Those mentioned by Anderson and Salerne were entirely of a jet black; that of Reaumur, noticed by Brisson, was black over the whole body. I have observed one which assumed a fine glossy black after the first moulting, but which still retained a little red on each side of the neck, and a little grey behind the neck, and on the small superior coverts of the wings; its legs were flesh-coloured, and the inside of its bill red: that of Albin had some red feathers

* *Loxia-Pyrrhula*—var. 1. *Linn.*

under the belly; the first five quills of the wing edged with white; the iris white, and the legs flesh-coloured*. Albin remarks that this bird was exceedingly gentle, like all the Bulfinches. It often happens that this robe of black disappears in moulting, and gives place to the natural colours: but often it renews each time, and remains for several years:—such was the case with Reaumur's. This would imply that the change of colour is not the effect of disease.

III. THE GREAT BLACK AFRICAN BULFINCH†. Though this bird is a native of a distant country, and exceeds the size of the European Bulfinch, I am still inclined to regard it as analogous to the variety which I have described by the name of the Black Bulfinch, and to suspect that the burning climate of Africa communicates a black hue to the plumage, as the cold of Siberia introduces a snowy white. It is entirely black except a very small white spot on the great coverts of the wing; and also the bill is grey, and the legs ash-coloured. It was brought alive to Paris from the coasts of Africa.

* Mr. White, in his Natural History of Selburne, relates also an instance of a cock Bulfinch turning dingy, and afterwards black.

† *Loxia Panicivora*.—Linn and Gmel.

Pyrrhula Africana Nigra.—Bris.

The White-winged Grosbeak.—Lath.

Total length, seven inches and one-fourth; the bill six lines; the alar extent four inches and one-fourth; the tail two inches and a half, consisting of twelve quills, and exceeding the wings eighteen lines.

FOREIGN BIRDS,

WHICH ARE RELATED TO THE BULFINCH.

THE ORANGE GROSBEAK*.

I CLASS together two birds, the one from the Isle of Bourbon, and the other from the Cape of Good Hope: they resemble each other so closely, that they must belong to the same species; and there is, besides, an intercourse between these two places.

CHARACTER SPECIFICUS.

LOXIA AURANTIA. L. fulva, pileo alis caudaque nigris.—

Lath. Ind. Orn. i. p. 390. No. 66.

LOXIA AURANTIA.—*Gmel. Syst.* i. p. 853.

LE BOUVRET.—*Buff. par Sonn.* xlix. p. 181.

LE BOUVREUIL de BOURBON et du CAP DE B. E.—*Pl. Enl.* 204. f. 1. 2.

ORANGE GROSBEAK.—*Lath. Syn.* iii. p. 146. 56.

HABITAT

in insula Borbonica et ad Caput B. Spei.— $4\frac{1}{2}$ pollices longa.
W.

Black, and bright orange, are the prevailing colours in this bird, fig. 1, which I conceive to be the male: the orange is spread on the throat, the neck, and on all the body, without exception; black occupies the head, the tail, and the wings; but the wing-quills are bordered with orange, and some of them, tipped with white.

In the female, all the head, the throat, and the fore part of the neck, are covered with a sort of black cowl; the under part of the body is white; the upper part orange, not so bright as in the male, but spreads diluting on the quills of the tail; the quills of the wings are delicately edged with light-grey, almost white: in both, the bill and legs are reddish.

Total length about four inches and a half, the bill somewhat less than four lines; the alar extent near seven inches; the tail twenty lines consisting of twelve quills; it exceeds the wings about fifteen lines.

II.

THE WHITE-BILLED GROSBEAK*.

This is the only bird of Guiana, that Sonnini admits to be a true bulfinch. Its bill, in the dried specimen, is horn-colour; but we are assured that it is white in the living subject: the throat, the fore part of the neck, and all the upper part of the body, not excepting the wings and the tail, are black; on the wings is a small white spot, which often lies concealed under the great coverts; the breast and belly are deep chesnut.

This bird is of the size of our bulfinch; its total length four inches and three-fourths, and its tail exceeds the wings by almost its whole length.

* CHARACTER SPECIFICUS.

LOXIA TORRIDA. L. nigra, pectore abdomineque castaneis.

—*Lath. Ind. Orn.* i. p. 389. No. 61.

LOXIA TORRIDA.—*Gmel. Syst.* i. p. 854.

LE BOUVREUIL à BEC BLANC.—*Buff. par Sonn.* xlix. p. 185.

WHITE-BILLED GROSBEAK.—*Lath. Syn.* iii. p. 146. 57.

HABITAT

in America calidiore, Guiana.

W.

III.

THE LINEATED GROSBEAK

This bird seems to form the shade between the European bulfinches and the round-bills of America. It is not larger than the twite: a fine black, changing into green, is spread over the head, the throat, and all the upper part of the body, including the coverts and quills of the tail and of the wings, or more properly speaking on what appears of these; for the inside is either not black, or is black of a different kind: there is also a very small white spot on each wing, and three spots of the same colour, but larger, the one on the top of the head, and the

* CHARACTER SPECIFICUS.

LOXIA LINEOLA. *L. cœruleo-nigra*, linea frontali temporibus macula alarum corporeque subtus albis.—*Lath. Ind. Orn.* i. p. 390. No. 68.

LOXIA LINEOLA.—*Gmel. Syst.* i. p. 854.

PYRÄHULA AFRICANA NIGRA, MINOR.—*Bris.* iii. p. 319. 5. t. 17. 1.

LE BOUVERON †.—*Buff. par Sonn.* xlix. p. 184.

LINEATED GROSBEAK.—*Lath. Syn.* iii. p. 149. 63.

.HABITAT

in Africa, Asia — $4\frac{1}{2}$ pollices longa.

W.

† Contracted for *Bourcruil-Bec-rond* (Bulfinch-Round-bill).

two other below the eyes. All the under part of the body is white; the feathers of the belly and the inferior coverts of the tail are frizzled in some subjects, for we may reckon the frizzled bulfinch of Brazil as belonging to this species, since the sole difference consists in the texture of the plumage, which is superficial and fluctuating. It is probable that frizzled bulfinches are cock-birds, Nature seeming in general to distinguish the males by strength and beauty. But how, it would be asked, is the male found in Brazil, and the female in Africa? I answer, 1. That the native climate of birds that pass through different hands is very uncertain. 2. If these were brought alive to Paris, they might also have been carried from South America to Africa. Any person who will draw the comparison between these two birds, will readily admit one of the two suppositions, rather than refer them to two different species.

Total length four inches and one-third; the bill four lines; the alar extent seven inches and a half; the tail twenty-one lines, consisting of twelve quills, and exceeding the wings about an inch*.

* Mauduit kept one of these birds, which had been brought him from Africa, in August, for eighteen months: it had then the frizzled feathers under the belly, but lost them when it moulted in October: the new feathers were not frizzled, nor in any respect different from the others. The bird moulted a second time before it died, but the feathers were the same.

IV.

THE MINUTE GROSBEAK*.

America produces also round-bills, which, though analogous to the bulfinches, are still so different as to merit a distinct denomination.

The present continues the whole year paired with its female. It is lively and tame, living near dwellings, and haunting grounds which have been under cultivation, but lately abandoned. It feeds upon grain and fruits; and, hopping about, it emits a cry much like that of the sparrow, but shriller. It forms with a certain reddish herb a small round nest of about two inches diameter within, and places it in the

* CHARACTER SPECIFICUS.

LOXIA MINUTA. L. grisea, uropygio subtusque ferruginea, remigibus 4, 5, 6, basi utrinque albis, cauda integra.—*Lath. Ind. Orn.* i. p. 396. No. 90.

LOXIA MINUTA.—*Gmel. Cyst.* i. p. 865.

LE BEC-ROND à VENTRE ROUX.—*Buff. par Sonn.* xlix. p. 188. pl. 122. f. 1.

GREY LOXIA, *Bancr. Guian.* p. 179.

MINUTE GROSBEAK.—*Lath. Syn.* iii. p. 158. 83.

HABITAT

in Surinamo, Cayana.

W.

same shrub that furnishes its subsistence. The female lays three or four eggs.

The upper part of the head, the neck, and the back, are brown-grey; the coverts of the wings, their quills, and those of the tail, are of the same colour nearly, and bordered with white, or light chesnut; the throat, the fore-part of the neck, the under part of the body, the inferior coverts of the tail, and the rump, deep chesnut; the bill and legs brown.

In some subjects the throat is of the same brown-grey as the upper part of the head.

V.

THE BLUE GROSBEAK*.

Brisson mentions two American blue bulfinches, of which he makes two separate species: but as they are both natives of the same climate, are of the same size, of the same shape nearly, and, except the wings, tail, and bill, are of the same blue colour, I shall consider them as form-

* CHARACTER SPECIFICUS.

LOXIA CÆRULEA. *L. cærulea*, alis fuscis, fascia bascos purpurea.—*Lath. Ind. Orn.* i. p. 374. No. 11.

LOXIA CÆRULEA.—*Gmel. Syst.* i. p. 863.

PYRRHULA CAROLINENSIS CÆRULEA.—*Bris.* iii. p. 323. 7.

LE BEC ROND, ou BOUVREUIL BLEU d'AMÉRIQUE.—*Buff. par Sonn.* xlix. p. 190.

ing one single species, and regard the differences as resulting from the influence of climate.

In both of them the prevailing colour is deep blue. The one from South America has a small black spot between the bill and the eye; the quills of the tail, those of the wings, and the great coverts of these, are edged with blue; the bill is blackish, and the legs grey.

That of North America has at the base of its bill a black circular zone, which extending forms a junction between the eyes; the quills of the tail and those of the wings, and their great coverts, brown, tinged with green; their middle coverts red, forming a transverse bar of the same colour; the bill brown, and the legs black. The plumage of the female is uniform, and of a deep brown, intermixed with a little blue.

With respect to the habits and economy of these birds, we can make no comparison, since we are unacquainted with those of the first. Catesby informs us in regard to the one from Carolina, that it is very solitary and rare; that it continues paired with its female, and never appears in flocks; that it never winters in Caro-

BLUE FINCH of GUIANA.—*Bancr. Guian.* p. 179. ?

—GROSBEAK.—*Cates. Car.* i. t. 39.—*Arct. Zool.* ii.

No. 217.—*Lath. Syn.* iii. p. 110. 11.

HABITAT

in America.

W.

lina; that its song is monotonous, and consists of a repetition of the same note. In all these properties the analogy to our bulfinch is marked.

VI.

THE BLACK GROSBEAK*.

As we have neither seen this bird, nor the dried specimen, we cannot decide whether it is a bulfinch or a round-bill. It has a little white on the anterior edge, and on the base of the first two quills of the wing; all the rest of the plumage is quite black, and even the bill and the legs; the upper mandible has a considerable scalloping on each side.

* CHARACTER SPECIFICUS.

LOXIA NIGRA. *L. nigra*, macula alba humeri basique remigum duarum exteriorum.—*Lath. Ind. Orn.* i. p. 388. No. 59. •

LOXIA NIGRA.—*Gmel. Syst.* i. p. 862.

PYRRHULA MEXICANA NIGRA.—*Bris.* iii. p. 316. 3. •

LE BOUVREUIL ou BEC-ROND NOIR ET BLANC.—*Buff. par Sonn.* xlix. p. 193.

LITTLE BLACK BULFINCH.—*Cates. Car.* i. p. 68.—*Alb.* iii. t. 69.—*Bancr. Guian.* p. 179. •

BLACK GROSBEAK.—*Lath. Syn.* iii. p. 147. 60.

HABITAT

in Mexico.

W.

This bird is a native of Mexico. It is nearly of the size of the canary finch; total length five inches and one-fourth; the bill five lines; the tail two inches, and exceeding the wings one inch.

VII.

THE PURPLE FINCH*.

This bird is entirely of a dull violet, except the belly, which is white; the superior coverts of the wings, where the violet is slightly mixed with brown; and the quills of the tail and of the wings, which are parted by blue and brown, the former in the direction of their breadth, and the latter in that of their length.

* CHARACTER SPECIFICUS.

FRINGILLA PURPUREA. F. subviolacea, ventre candido, remigibus intus caudaque à medio ad apicem fuscis.—*Lath. Ind. Orn.*, i. p. 446. No. 45.

FRINGILLA PURPUREA.—*Gmel. Syst.* i. p. 923.

PYRRHULA CAROLINENSIS VIOLACEA.—*Bris.* iii. p. 324. 8.

LE BOUVREUIL VIOLET de la CAROLINE.—*Buff. par Sonn.* xlix. p. 195.

PURPLE FINCH.—*Avt. Zool.* ii. No. 258.—*Cat. Car.* i. t. 41.
—*Lath. Syn.* iii. p. 275. 39.

HABITAT

in Carolina.

W.

The female is uniformly brown, only its breast is spotted, as in the red-poll.

These birds appear in the end of November, and retire before the winter in small bodies. They live upon juniper-betries, and, like our bulfinches, destroy the buds of the fruit-trees. They are nearly of the size of the chaffinch.

Total length five inches and two-thirds; the bill five lines; the tail two inches, somewhat forked, consisting of twelve quills, and projecting seven or eight lines beyond the wings.

VIII.

THE PURPLE GROSBEAK*.

This has still more of the violet than the preceding, for the quills of the wings and tail are also of that colour; but it is principally distinguished by its red throat, and its beautiful red eye-brows painted on the violet ground; the

* CHARACTER SPECIFICUS.

LOXIA VIOLACEA. *L. violacea*, superciliis gula crissoque rubris.—*Lath. Ind. Orn.* i. p. 375. N^o. 13.

LOXIA VIOLACEA.—*Gmel. Syst.* i. p. 864.

PYRRHULA BAHAMENSIS VIOLACEA.—*Bris.* iii. p. 326. 9.

LE BOUVREUIL à GORGE ET SOURCILS ROUGES.—*Buff. par Sonn.* xlix. p. 197.

inferior coverts of its tail are also red, and its bill and legs are grey.

The female has the same red spots as the male, but the ground colour of its plumage is brown.

These birds are found in the Bahama Islands. They are nearly as large as a house sparrow.

Total length five inches and two-thirds; the bill five or six lines; the tail two inches and a half, and projects thirteen or fourteen lines beyond the wings*.

PASSER NIGER PUNCTIS CROCEIS.—*Raii Syn.* p. 188. 48.

—*Sban. Jam.* ii. p. 311.

PURPLE GROSBEAK.—*Arct. Zool.* ii. No. 218.—*Cates. Car.* i. t. 40.—*Lath. Syn.* iii. p. 117. 12.

HABITAT

in America calidjore, Jamaica.

W.

* It inhabits the Bahama Islands, and feeds upon the berries of the *Amyris Toxicaria*, a tree from whose trunk a black poisonous juice exudes.

IX.

THE BLACK-CRESTED
GROSBEAK*.

The plumage of this bird is painted with the richest colours; the head black, bearing a crest of the same; the bill white; all the upper part of the body brilliant red; the under part fine blue; there is a black spot before the neck. This justifies the assertion of Seba, that it is inferior in beauty to none of the singing birds. We may thence infer that it has some sort of warble. It is found in America.

Brisson reckons it much larger than our bulfinch. The measures were taken from a figure whose accuracy is not well ascertained.—Total length six inches; the tail eighteen lines and more, and projecting about six lines beyond the wings.

* CHARACTER SPECIFICUS.

LOXIA CORONATA. L. cristata, supra coccinea, subtus cyanea, macula colli inferioris cristaque nigris.—*Lath. Ind. Orn.* i. p. 391. No. 71.

LOXIA CORONATA.—*Gmel. Syst.* i. p. 859.

PYRRHULA AMERICANA CRISTATA.—*Bris.* iii. p. 327. 10.

LA HUPPE NOIRE.—*Buff. par Sonn.* xlix. p. 199.

BLACK-CRESTED GROSBEAK.—*Lath. Syn.* iii. p. 350. 67.

HABITAT

in America.

W.

THE HAMBURGH

Though this pretended bulfinch is a native of Europe, I place it after those of Africa and America, because its habits are dissimilar. It creeps upwards and downwards along the branches of trees like the titmice; feeds upon horn-beetles, and other insects; and has a tapered tail.

The upper part of its head and neck is reddish-brown, tinged with purple; its throat brown; it has a broad collar likewise brown upon a white ground; the breast is yellowish-brown, sprinkled with black longish spots; the belly, and the inferior coverts of the tail, white; the back, the shoulders, and all the upper part of the body, like the breast; there are two white spots upon each wing; the quills of the wings are light brown and yellowish; those of the tail, obscure brown above, but white below; the iris yellow, and the bill black.

It is rather larger than the house sparrow.— It is found near the city of Hamburg.

Total length five inches and three-fourths; the bill six lines; the tail twenty-one lines, somewhat tapered, and extends almost its whole length beyond the wings.

* Latham considers this bird as the Mountain Finch. It is the *Loxia Hamburgia*.—Linn.



THE COLY.

THE COLY*.

It appears to us, that this bird should be ranged between the genus of the widow and of the bulfinch. Like the former, it has two long feathers in the middle of its tail; and the latter it resembles by the form of its bill, which would be exactly that of the bulfinch, were the lower mandible convex as the upper. But the tail of the Coly differs from that of the widow, because it consists of tapered feathers, of which the last two project only three or four inches beyond the rest; whereas the widow-bird, besides the true tail, which is a bundle of feathers of equal lengths attached to the rump, has appendices that in the different species of this genus contain two, four, and even six or eight feathers extending to double or triple the length

COLIUS.

CHARACTER GENERICUS.

Rostrum supra convexum, infra rectum, mandibula superiore apice incurvo.

Nares parvæ ad basin pennis subtectæ.

Lingua apice laciniata.

Digiti ad imum fissi.

Cauda cuneiformis, longa.

of the true tail. In the widow-birds, too, the webs of the projecting feathers are equal on, both sides, and pretty long, and taper imperceptibly from the origin to the extremity, except in the Dominican and shaft-tailed kinds; the former having its webs very short, and quickly contracting towards the tips; the latter also very short, but which uniformly lengthen and expand at the tips. In all the colies, the feathers of the tail, whether those which properly belong to it, or those which project from it, have vanes that continually diminish from the insertion to the termination. Thus the real affinity between the tail of the widow-birds, and that of the colies, consists in its length, and this analogy is the closest in the case of the Dominican widow.

M. Mauduit has made two important observations on this subject. The first is, that the long tails, the appendices, and other ornaments, of certain birds, are not peculiar additions, but only the greater extension of the parts common to all the feathered tribes. Thus long tails consist in the augmented growth of the quills of the tail; and crests are derived from the enlargement of the feathers on the head. The mustachoes of the paradise bird appear to be only the production of the slender narrow plumules, which in all birds cover the *meatus auditorius externus* *. The exuberant growth of the

* i. e. The external aperture of the ear.

axillary feathers give rise to the long floating feathers which shoot from under the wings in the common paradise, and of those which present the double wings in the king paradise. When these feathers lie flat, they stretch towards the tail; but when they are displayed they make angles with the axis of the body. They differ from all other feathers, as their webs are equal on both sides of the shaft. They resemble oars, and may serve to direct the bird's motion. And thus all the ornaments of plumage are derived from the mere exuberance or production of parts usually less apparent.—The second observation of M. Mauduit is, that these decorations are rare in the cold and temperate climates in both hemispheres, but are pretty frequent in the hot countries, especially in the old continent. Scarcely any long-tailed birds are found in Europe, except the pheasant, the cock, which also is often crested, and has long floating feathers on the sides; the magpie, and the long-tailed titmouse; and we have hardly any crested birds but the eared owls, the lapwing, the crested lark, and the crested titmouse. Some water-birds indeed, such as the ducks and herons, have frequently long tails, or ornaments composed of plumes, tufts, and feathers floating on the rump.—These are all the birds which the frigid and temperate zones afford, decorated with luxuriance of plumage. But in the torrid regions, especially those of the old continent, the greatest number of birds are

robed with such rich attire: we might instance the colies, the paradise birds, the kakatoes, the widows, the crowned pigeons, the hoopoes, the peacocks, which are all natives of the hot climates of Asia, &c.

The colies belong to the ancient continent, and are found in the warm parts of Asia and Africa, but never in America or Europe.

We are but imperfectly acquainted with four species or varieties, of which we can here give only the descriptions; for their habits and instincts are unknown.

1. *The Coly of the Cape of Good Hope**, which we have described from a specimen in the king's cabinet. We cannot decide whether it is a male or a female. The body is entirely cinereous,

CHARACTER SPECIFICUS.

COLIUS CAPENSIS. *C. rectricibus extimis externe albis, corpore cinereo subtus albido.*—*Lath. Ind. Orn.* i. p. 368. No. 1.

COLIUS CAPENSIS.—*Gmel. Syst.* i. p. 842.

LOXIA COLIUS.—*Linn. Syst.* i. p. 301. 12.

COLIUS CAPITIS BONÆ SPEI.—*Bris.* iii. p. 304. 1. t. 16. f. 2.

LE COLIOU du CAP DE B. ESP.—*Buff. Pl. Enl.* 282. f. 1.—*Buff. par Sonn.* xlix. p. 224.

CAPE COLY.—*Lath. Syn.* iii. p. 100. 1.

HABITAT

ad Caput B. Spei.—10½ pollices longa.

W.

pure, on the back and rump, and mixed on the head; the throat and neck have a light lilac tint, which deepens on the breast; the belly is dirty white; the quills of the tail are cinereous but the two lateral ones on each side are edged exteriorly with white; the two intermediate quills measure six inches and nine lines; those on the sides diminish gradually in length; the legs are grey, and the nails blackish; the bill is grey at its base, and blackish at its extremity. The length of the bird, including the long quill of the tail, is ten inches and three lines: so that the real size of the body exceeds not three inches and a half.---It is found at the Cape of Good Hope.

2. *The Crested Coly of Senegal** resembles the preceding, and may be regarded as a variety of

* CHARACTER SPECIFICUS.

COLIUS SENEGALENSIS. C. vinacco-grisescens, cauda corulescente, capite cristata.—*Lath. Ind. Orn.* i. p. 368 No. 2.

COLIUS SENEGALENSIS.—*Gmel. Syst.* i. p. 842.

LANIUS MACROURUS.—*Lin. Syst.* i. p. 134. 5.

COLIUS SENEGALENSIS CRISTATUS.—*Bris.* iii. p. 306. t. 16. f. 3.

LE COLIOU HUPPE' du SENEGAL.—*Buff. Pl. Enl.* 282. f. 1
—*Buff. par Sonn.* xlix. p. 224.

SENEGAL COLY.—*Lath. Syn.* iii. p. 101. 2.

HABITAT

in Senegala.

W.

that species, though it differs in point of size, being two inches longer.' It has a sort of crest formed by projecting feathers on the head, and which is of the same complexion as the rest of the body; there is a well-defined bar of fine sky-blue behind the head, at the origin of the neck; the tail tapers from its base to its extremity; the bill is not entirely black; the upper mandible is white from its base to two-thirds of its length, and its end is black.—These differences, though considerable, do not allow us to decide whether this bird be a different species, or only a variety of the preceding.

3. Another species or variety rather larger than the last is the *Radiated Coly**, which we have seen in Maudslui's cabinet. It is thirteen inches long, including the long quills of the tail, which are only eight inches and a half, and exceed the wings by seven inches and a half;

* CHARACTER SPECIFICUS.

COLIUS STRIATUS. C. griseo-rubescens, subtus fusco transversim striatus, pectore griseo-rufo, abdomine rufo, cauda viridi.—*Lath. Ind. Orn.* i. p. 369. No. 4.

COLIUS STRIATUS.—*Gmel. Syst.* i. p. 843.

LE COLIOU RAYE'.—*Buff.* iv. p. 405.

RADIATED COLY.—*Eath. Syn.* iii. p. 102. 4.

HABITAT

ad Caput Bonæ Spei.—13 pollices longa.

W.

the bill is nine lines, black above, and whitish below.

It is called *Radiated Coly*, because all the upper part of the body is radiated first under the throat with brown bars on a rusty grey ground, and under the belly with bars likewise brown on a rufous ground; the upper part of the body is not radiated, is of a dirty grey, variegated slightly with lilac, which becomes more reddish on the rump and tail, which is green, and exactly similar to that of the other colies.

Mauduit, to whom we owe our knowledge of this bird, thinks that it is a native of the countries near the Cape of Good Hope, because it was brought from the Cape, with several other birds that certainly belong to that part of Africa.

4. *The Coly of the Island of Panay**. We shall extract the account of it from Sonnerat's Voyage to New Guinea.

* CHARACTER SPECIFICUS.

COLIUS PANAYENSIS. C. griseo-cinereus, capite cristato, pectore striis transversis uigris, abdomine rufo.—*Lath. Ind. Orn.* i. p. 369. No. 5.

COLIUS PANAYENSIS.—*Gmel. Syst.* i. p. 843.

LE COLIOU de l'ISLE DE PANAY.—*Buff.* iv. p. 406.—*Sonn. Voy.* p. 116. t. 74.

PANAYAN COLY.—*Lath. Syn.* iii. p. 103. 5.

HABITAT

in insula Panaya.

W.

“ It is of the size of the European grosbeak ; the head, the neck, the back, the wings, and the tail, are ash-grey, with a yellow tinge ; the breast is of the same colour, crossed with blackish rays ; the lower part of the belly, and the upper part of the neck, are rusty ; the wings extend a little beyond the origin of the tail, which is extremely long, consisting of twelve unequal quills ; the first two are very short ; the two following on each side are longer, and thus in the successive pairs till the last two, which exceed all the rest ; the fourth and fifth pairs differ little from each other, in regard to length ; the bill is black ; the legs are pale flesh-colour ; the feathers that cover the head are narrow, and pretty long, and form a crest, which the bird can raise or depress at pleasure.”

END OF VOL. IV.

